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March 9, 2007 Volume 29 Number 10 www.processor.com



A Better Ethernet With Woven Systems

Solving The Technology's Speed Problems

by David Garrett

WHETHER IT'S high-speed SANs; streaming movies; high-performance computing for weather, fluid dynamics, or nuclear research; or just plain old server consolidation, today's data centers have a seemingly endless need for high bandwidth and fast data transfer. Fibre Channel and InfiniBand offer partial solutions, but neither is perfect. The cost of Fibre, for instance, is daunting, and the added complexity of new architectures can burden even the best data center staff. Enter Woven Systems, working to produce a new class of switch that, it claims, will offer ultra-low latency, high port count, and 10Gbps transfers over the Ethernet standard you already use.

Woven intends to launch its first set of products in April or May. And while it's still not out of the gate—at least not officially—this Santa Clara, Calif.,-based startup has attracted investment attention from such heavyweights as Goldman Sachs and early stage IT specialists Palomar Ventures, which has over \$500 million under management.

"What's driving the need for our solution is the scale-out compute model that companies of all sorts are faced with, both in enterprises and Internet data centers," says Derek Granath, Woven's vice president of marketing. "In the past few years, we've gone from expensive, multiprocessor machines to scale-out models of rack servers and blade servers. Connecting all of

Those connections aren't cheap; 10Gb NICs, for instance, can take \$1,000 per port from a data center's pockets. And the mere number of switches needed, with no small number of ports consumed solely for switch-to-switch connectivity, has strained some budgets to the breaking point. Fibre Channel, well known for its reliability, is even better known for its price. By contrast,

Woven Systems

these servers has become an astronomical portion of the total costs."

Dollar For Dollar

Indeed, connecting a server to a highspeed network may cost as much as the server itself, in part because the movement to scale out servers has caused what Woven's President and CEO Harry Quackenboss calls, "an explosion in the number of connections needed." InfiniBand is cheap, but the soft costs of managing two or even three architectures add up over time, as well the expense of three types of equipment where one sufficed in the past.

Woven's strategy, then, is simple. "A lot of the Ethernet configurations today haven't been designed for the performance and scalability that people have come to expect from Fibre Channel," says

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Virtualization Forecast

The Increasing Importance Of Virtualization In The SME

by Robyn Weisman

VIRTUALIZATION IN ALL ITS forms has been the YouTube of the enterprise IT world in terms of the buzz it has received during the past year. Yet despite all the talk about it, storage virtualization has not made the sorts of inroads in the SME that one might expect, given all the press it has received. Much of it has to do with cost—storage is cheaper than ever, while earlier-generation storage virtualization solutions were just too pricy for the average SME to justify.

But as SMEs find themselves with exploding data storage and high availability needs, storage virtualization technology is starting to look like an unavoidable expense for many businesses big and small. With that in mind, NeoPath Networks (www.neopathnetworks.com), a supplier of storage virtualization solutions, released a

set of predictions that suggest the increasing importance of this area during the next 12 months or so.

Given these predictions, will 2007 be the year that file virtualization cracks the SME market? What factors will lead to its increased adoption?

The Cost Of Migration

Migrating data is an incontrovertible fact of storage management. NeoPath CEO Alan Baratz says that his company has customers that are doing data migrations 365 days a year. Regardless of the amount of days per year that companies perform migrations, companies have to migrate data when upgrading storage capacity, moving from old servers to new servers, performing backups to remote servers, and setting up disaster recovery schemes, among other scenarios.

While SMEs are not members of the Fortune 500 and so as a group may not be *Go to Page 10*

According to NeoPath's Ali Zadeh, about 40% of an average IT budget is spent on storage.

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Product Releases | 16 ■ Accellion introduced the Courier Secure File

Transfer Appliance 5.5. ■ CipherMax introduced its CM100 family of storage-encryption products. ■ **Emulex** launched an upgraded version of its enterprise-class HBAnyware management software. \blacksquare The new HP StorageWorks D2D Backup System automates and centralizes backup to provide data protection for up to four servers. ■ The new Infobiox-2000 provides core security functions such as DNS, DHCP, IPAM, RADIUS, TFTP and HTTP, NTP, and more. ■ Lantronix announced its IntelliBox-I/O 2100, which the company says is the industry's first fully programmable external device server that automates managing remote equipment and associated reporting. ■ Uptime **Software** unveiled up.time 4 enterprise server monitoring and capacity planning software.

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Upcoming IT Events

- MARCH -

Gartner Business Intelligence Summit March 12-14

Chicago, III. www.gartner.com/2_events/conferences/bi5.isp

. Boston SecureWorld Expo

March 14-15 Boston, Mass. www.secureworldexpo.com

. TelecomNEXT

March 18-21 Las Vegas, Nev. www.telecom-next.com

Gartner Outsourcing

Summit March 19-21 Dallas, Texas www.gartner.com/2_events/conferences /std10.jsp

.

FOSE March 20-22 Washington, D.C. www.fose.com

Visit Processor at Booth 1643

. Data Center World March 26-27

Las Vegas, Nev. www.afcom.com

Visit Processor at Booth 514

Data Center World

March 26-27 Las Vegas, Nev. www.afcom.com

> **RFID World** March 27-29

Dallas, Texas www.shorecliffcommunications.com/rfid07

Secure IT Conference March 27-29 Sacramento, Calif.

www.secureitconf.com - APRIL -

Infotec April 16-18 Omaha, Neb. www.infotec.org

. Gartner Symposium/ITXpo

April 22-26 San Francisco, Calif. www.gartner.com/it/sym/2007/spg9 /spg9_home.jsp

. Chicago SecureWorld Expo April 24-25

Chicago, III.

www.secureworldexpo.com

ASCDI Spring

April 25-28 Las Vegas, Nev. www.ascdi.com

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MarketPlace ~ NEWS





Microsoft Drops DST Patch Prices

MICROSOFT HAS CUT the price for Daylight Saving Time patches for some customers to a tenth of the price the same patches cost last year. The new pricing mainly impacts products in the extended support cycle, including Windows 2000, Exchange Server 2000, and Outlook 2000. In 2006, Microsoft was charging \$40,000 per product for the DST fixes. It's dropped that charge to \$4,000 for all fixes. Microsoft will not be releasing fixes for users with even older Microsoft products; those products must be updated manually. Daylight Savings Time will go into effect March 11 this year.

Sun Boasts Strong Server Sales

Sun's server revenue grew 15.4% during 2006, which was significantly stronger than the overall server market growth of only 2% last year, according to Gartner Group. Overall server market revenue was \$52.7 billion, with unit shipments of 8.2 million. Sun's server revenue of \$5.4 billion put the company in third place, behind IBM, with \$16.9 billion in sales and HP, with \$14.2 billion in sales. IBM's 2006 server revenue was up 1.7% from 2005, while HP's server revenue was down 2.3%. HP claimed the top in terms of units shipped, with 2.3 million units.

Windows Staffing Changes

As PART OF the company's continued restructuring, Microsoft has announced changes to its Windows unit. Steven Sinofsky will continue to head up Windows development, while Bill Veghte will lead a newly created Windows Business Group. Sinofsky and Veghte will both fall under the leadership of Kevin Johnson, whose unit oversees Windows and Win-dows Live. Leaders in the Windows Business Group will include Mike Sievert, who will focus on marketing; Mike Nash, who will run product management; Will Poole, who will oversee emerging markets and new PC market expansion; and Joe Peterson, who will lead online distribution and the new antipiracy campaign.

HP Acquires Storage Software Company

POLYSERVE, which makes software that consolidates servers and storage into manageable, scalable NAS and available database and high-performance file serving utilities, will be acquired by HP in a deal that is scheduled to close in 60 days. Details of the acquisition have not yet been released. PolyServe's current President, Chairman, and CEO Michael Stankey has said he will stay with the company in order to help with the transition but will not remain after that time. HP currently sells PolyServe software as the HP EFS Clustered Gateway with certain storage solutions.

Lenovo To Cut Jobs

NEARLY A YEAR after its announcement last year to lay off 1,000 workers, Lenovo says it plans to cut 1,000 more jobs in an effort to reduce costs. China's largest computer maker says most of the cuts will be layoffs, although some employees will be redeployed, and the majority of the cuts will occur in the United States, with China also experiencing some restructuring. The

company says the job cuts will save \$150 million to \$175 million a year, which will come in handy as Lenovo is experiencing intense pricing pressures from competitors such as HP and Dell.

Lenovo Recalls Laptop Batteries

LENOVO RECENTLY announced the worldwide recall of about 205,000 Sanyo-built lithium-ion batteries used in some ThinkPad notebooks. The company decided to recall the batteries after receiving four reports of the batteries overheating. One of those cases resulted in minor eye irritation by the consumer. It is the second such recall in the past six months for Lenovo. Information on how to determine if your laptop battery is affected by the recall is available at www.levovo.com /batteryprogram.

■ SMEs Less Focused On Security

SMALL AND MIDSIZED enterprises are more focused on keeping the business up and running than on the potential for security breaches, according to new research from IDC. The report shows that only 8% of the SME IT decision makers polled consider improving IT security a top business priority, yet 80% fear what would happen to their business if an IT security threat struck them. When it comes to security challenges, 39% of those surveyed ranked keeping up-to-date with security products as their biggest challenge, 38% said keeping up with new threats, and 33% indicated keeping costs down.

Oracle To Buy Hyperion

FROM THE BEGINNING of 2005 until now, Oracle has announced nearly 30 acquisitions, and now it's adding another to the list. The company has agreed to purchase Hyperion Solutions, a business intelligence software vendor, for \$3.3 billion in cash, or \$52 per share. Oracle hopes the deal, which is slated to close in April, will help it compete with its main rival SAP by bringing SAP's customers closer to Oracle, as many of them use Hyperion products. Hyperion's channel partners have already given their nod of approval on the acquisition.

■ More Possible EU Fines For Microsoft

FOLLOWING ITS BATTLE with Microsoft over an antitrust ruling from three years ago, the European Union says it may impose new fines on the software giant for charging unreasonably high prices to other software makers for important data that Microsoft had. The software company claimed the prices it was charging for the vital data was 30% lower than the market rate for comparable technology, but the Commission said the usual price for competitive technology is free or nominally priced. A Commission spokesperson said these new fines, based entirely on Microsoft's behavior, could mean new daily penalties for Microsoft, in addition to other fines the company already faces.

Nortel To Restate Earnings

FOR THE FOURTH TIME in as many years, Nortel Networks will restate financial results, this time from 2004, 2005, and the first three quarters of last year. Nortel says the restatements will correct mistakes from third-party actuarial calculations and circumstances when it should have recorded revenue in later periods. For 2004, the corrections will cut revenue by \$33 million and raise net loss by \$42 million. For 2005, the changes will reduce sales by \$28 million and raise net loss by \$87 million. And for the first three quarters of last year, the adjustments will increase revenue by \$24 million and raise net earnings by \$15 million.

Gates Sells Stock On Worst Days

ON THE LAST TWO days of last month, Microsoft Chairman Bill Gates sold off a small portion of his Microsoft stocks, but because of the sudden downturn in the global stock market, he likely received a few million dollars less for them than he would have at any other time. According to the SEC, on Feb. 27 Gates sold 990,000 shares for prices between \$28 and \$28.96, and on Feb. 28 he sold 1 million shares ranging from \$27.95 to \$28.24. During the rest of last month, Gates sold about 18 million shares, with those prices averaging over \$29 a share.

Disk Drive Replacement Studied

HARD DRIVES ARE being replaced more often than vendors claim, according to a new study by Carnegie Mellon University. The study showed that companies were replacing between 2% and 4% of their hard drives because of failure each year; replacement figures were as high as 13% on some systems. That's much higher than the 0.88% replacement rate a typical drive's MTBF would indicate. The study also showed little difference in replacement rates between SCSI, Fibre Channel, and SATA drives and that drive failure rates tend to grow constantly with age, rather than after a nominal lifetime.

WATCH THE

This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	Feb. 26 \$	March 5 \$	% change from previous week
Avaya	AV	\$11.02	\$12.93	\$11.85	▼ 8.35%
BEA Systems	BEAS	\$11.38	\$11.93	\$11.40	▼ 4.44%
Computer Associates	CA	\$27.21	\$26.80	\$25.29	▼ 5.63%
Cisco Systems	CSCO	\$19.97	\$27.24	\$25.46	▼ 6.53%
Dell	DELL	\$29.44	\$23.80	\$22.53	▼ 5.34%
Electronic Data Systems	EDS	\$26.86	\$29.13	\$27.37	▼ 6.04%
Google	GOOG	\$390.38	\$464.93	\$440.95	▼ 5.16%
HP	HPQ	\$33.41	\$40.29	\$38.75	▼ 3.82%
IBM	IBM	\$80.63	\$96.91	\$91.81	▼ 5.26%
Intel	INTC	\$20.52	\$20.85	\$19.11	▼ 8.35%
McAfee	MFE	\$23.31	\$31.69	\$29.55	▼ 6.75%
Microsoft	MSFT	\$27.05	\$29.07	\$27.55	▼ 5.23%
Oracle	ORCL	\$12.46	\$16.82	\$16.37	▼ 2.68%
Red Hat Software	RHT	\$26.45	\$23.79	\$21.71	▼ 8.74%
Sun Microsystems	SUNW	\$4.31	\$6.27	\$6.07	▼ 3.19%
Symantec	SYMC	\$17.16	\$17.36	\$16.69	▼ 3.86%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions

MARKET WATCH

Wireless Analysis Devices

Monitor A Variety Of Wireless Traffic

by Sandra Kay Miller

WIRELESS TECHNOLOGY: It's everywhere, from RFID chips in passports to cellular communications systems around the world. Bluetooth, Wi-Fi, and WiMAX add to the assortment of frequencies occupying the spectrum.

Ryan Reith, research analyst for IDC, predicted that by the end of last year over a billion—yes, billion—mobile handsets alone would be shipped worldwide. According to Richard Webb, directing analyst for wireless at Infonetics Research, handsets are rapidly evolving into dualmode Wi-Fi/cellular VoIP devices with expected five-year compound annual growth rate of 198% between 2006 and 2010. During the same period, the cellular



SNAPSHOT

Berkeley Varitronics BumbleBee Tablet

\$4,500

An all-in-one system UMPC (Ultra-Mobile PC) spectrum analyzer covering wireless bands and applications including Wi-Fi (802.11a/b/g), WiMAX, VoIP, ISM, Public Safety, and Bluetooth

www.Processor.com/BumbleBee

market should grow by 26%, and Wi-Fi handsets will explode by 1,300%.

Riding on the coattails of mobile handset sales, Bluetooth technologies gained significant traction last year. InStat analyst Brian O'Rourke attributes the sharp increase solely to mobile phones. ABI Research's wireless analyst, Stuart Carlaw, estimates that annual Bluetooth chip shipments will reach the billion mark by 2009 due to demand for wireless connectivity among cell phones, wireless headsets, computers, automobiles, and consumer electronics.

Another wireless technology poised for exponential growth is RFID. Gartner estimates by 2010 global spending on RFID will top \$3 billion; however, researchers at Datamonitor are much more optimistic, with projected sales more than double Gartner's number with \$6.1 billion.

Buying Tips

Here are some tips to consider before purchasing a wireless analysis device.

- Be certain the device you choose covers the frequencies and bands you want to analyze.
- For an extended-use life cycle, consider equipment that can be upgraded.
- Consider the physical construction of the device for outdoor and industrial use.
- Verify that the user will be able to operate the device. Some spectrum analyzers are geared for engineers and others for less technical users.

The Right Tools

The comprehensive growth expected in the wireless device market means that the tools needed to install, monitor, analyze, and troubleshoot wireless networks will also grow. Spectrum analysis tools will need to cover multiple wireless bands, such as Wi-Fi, WiMAX, Bluetooth, and RFID, in order to remain competitive.

Initial solutions on the market were aimed at large-scale, professional installations, as was reflected in the complexity and price. However, as multiple types of wireless technologies have become ubiquitous in the enterprise environment, inhouse technicians are turning to newer and less costly solutions to meet their needs. In response, vendors are keeping up with emerging wireless technologies by integrating new features into the latest releases of their wireless analysis devices.

Battle Of The Bands

As wireless technologies grow, a variety of devices are using multiple bands across the RF spectrum, ranging from Very Low Frequency such as RFID starting at 9KHz and going to Extremely High Frequency with microwaves reaching 300GHz.

Wireless spectrum analyzers serve two main functions: monitoring and troubleshooting interference.

Berkeley Varitronics Systems recently released the latest version of its BumbleBee Spectrum Analyzer. Based on a ruggedized Windows XP tablet, the BumbleBee comes in two models: one supporting two frequency ranges (2.4 to 2.5GHz and 4.9 to 5.9GHz) and one for three (902 to 928MHz, 2.4 to 2.5GHz, and 5.15 to 5.9GHz).



SNAPSHOT

Willtek 9102 Handheld Spectrum Analyzer

Starts at \$8,000

Offers a wide frequency range from 100KHz to 7.5GHz; the latest release includes coverage for WiMAX and C band frequencies

www.Processor.com/Willtek2

This portable device is built on a tablet PC offering a 7-inch WVGA LCD touchscreen and 60GB HDD storage for instant playback and archiving of all captured data. Users can instantly switch between bands for real-time analysis across the spectrum. The BumbleBee offers advanced analysis features such as custom power triggers, three pairs of markers, spectrogram, histogram, video smoothing, waveform averaging, one live trace, and up to four peak hold waveform traces with peak hold and peak search.

Another recent release is the frequency extension to Willtek's 9102 Handheld Spectrum Analyzer, boosting coverage to a whopping 7.5GHz. Current deployments of the 9102 model can be upgraded to handling the extended frequencies.

The 9102 gives users granular control with adjustable settings for sweep time and resolution bandwidth, along with zero span, multiport capability and frequency counter. All this is housed in a 7-pound handheld



SNAPSHOT

Fluke Networks AnalyzeAir WiFi Spectrum Analyzer

\$3,685

Offers quick and easy analysis of the unlicensed 2.4GHz and 5GHz frequencies used by 802.11a/b/g WLANs

www.Processor.com/Fluke10

unit with a full graphical user interface, 13 softkeys, 6.5-inch high-contrast VGA TFT color display, and both Ethernet and RS-232 interfaces. The Field Edition comes with a 7.2Ah rechargeable Li-Ion battery.

Watching Wi-Fi

Wi-Fi is everywhere today. From the local coffee shop to enterprise campuses, 802.11 networks have proliferated and so have analysis devices specific to their monitoring. There are a number of software packages, such as AirTight Networks (www.Processor.com/AirTight), that integrate into access points to deliver detailed wireless analysis. Similarly, there are a number of freely available applications, such as Kismet (www.kismetwireless.net), that can be deployed on laptops for better portability. However, many technicians continue to rely on dedicated handheld wireless analysis devices.

Network monitoring and analysis equipment from Fluke, a global leader in electronic monitoring devices, was so successful that it has spun off an entire division, Fluke Networks. Known for equipment that is easy to use, AnalyzeAir Wi-Fi Spectrum Analyzer delivers spectrum analysis of all Wi-Fi devices in an intuitive format.

AnalyzeAir covers the 2.4 to 5GHz range and can be deployed on a laptop computer with a PCMCIA card; omni antenna; directional antenna; antenna mounting kit; or



SNAPSHOT

Bantam Instruments Wireless Wizard

\$2,950

A complete 2.4GHz and 5GHz Wi-Fi measurement system that includes a handheld, battery-operated spectrum analyzer, directional and omnidirectional antennas, power adapters, and PC software

www.Processor.com/Wizard

Fluke's OptiView Integrated Network Analyzer, a portable network analysis device that includes a protocol analyzer, cable tester, and RMON2 probe.

Ten different plots and charts are available, including real-time FFT and duty cycle, swept spectrogram, power vs. frequency, power vs. time, and detailed information regarding active devices along with associated channels.

Also dedicated to the 2.4 to 5GHz range is Bantam Instruments' Wireless Wizard, a handheld, battery-operated spectrum analyzer that includes a variety of antennas to cover the 802.11 and public safety bands.

The proprietary triangular Log Periodic Directional Antenna picks up Wi-Fi access points and interference sources for 802.11. Also included are separate 2.4GHz and 5GHz omnidirectional monopole antennas.



SNAPSHOT

MetaGeek Wi-Spy Spectrum Analyzer

¢100

A small, affordable 2.4GHz USB-based spectrum analyzer that works on Windows, Linux, and Mac platforms; comes with Chanalyzer software for graphical display and analysis

www.metageek.net

Up to 20 setups and 16 traces can be stored on the device and then later downloaded onto a PC using the PC Enhancement Program included with the Wireless Wizard. Data can be displayed in log or graph format (JPG and BMP) or exported to a spreadsheet. The entire system comes in a handy carrying case.

Affordable Option

While tools from Bantam, Fluke Networks, Berkeley Varitronics Systems, and Willtek make a wireless technician's job less difficult, not everyone can justify or afford those types of spectrum analysis tools. Wi-Spy from MetaGeek is a USB-based 2.4GHz spectrum analyzer that offers an inexpensive way to monitor and troubleshoot an assortment of RF signals including Wi-Fi (802.11b/g/n), microwaves, cordless phones, Bluetooth, and ZigBee.

Used in conjunction with the freely available Chanalyzer 2.0 software, users have access to spectral, topographic, and planar views; average and maximum tracing of data; frequency and amplitude markers; and frequency and channel labels and can record and play back captured traces. Chanalyzer works on Windows, Linux, and Mac platforms and the Wi-Spy device on USB 1.1 or 2.0.

With all the available wireless spectrum analysis devices available today, IT professionals and wireless network engineers should have little trouble finding the right tool to fit their needs.

To see *Processor* Showcase advertisements for products in this category, look online at www.Processor.com and find the Wireless Analysis ads under Communications/Wireless.

APPLICATION NETWORKING

Accelerate & Secure Your Applications

A10 Networks AX & EX Series Help Meet Increasing Enterprise Demands



The AX Series application acceleration switch can improve application response up to 8 times.



The EX Series secure WAN management appliance offers identity-based application visibility.

A10 NETWORKS' new AX Series and EX Series can answer the enterprise need for an easier, more efficient way to manage the network and accelerate, optimize, and secure applications.

AX Series

The AX Series is the industry's best performing application acceleration switch, helping enterprises maximize application availability through a high-performance and scalable application delivery platform. The AX's ACOS (Advanced Core Operating System) linearly scales performance across multiple decoupled CPUs and specialized programmable ASICs to ensure maximum scalable performance. In addi-

tion, the AX Series' aRule Advanced Scripting technology provides ultimate policy creation flexibility to deliver rich traffic inspection and switching capabilities, helping organizations adapt to everchanging conditions and application types.

Key benefits include:

- Improved user application response times by up to 8 times
- Five 9s reliability for accelerated applications
- The best price-performance per watt in a compact 2U form factor
- An ACOS (Advanced Core OS) that delivers highly optimized multithreaded performance to future-proof scalability

- · The ability to scale server farm capacity by up to 10 times with advanced server load balancing
- Protects application servers from DoS and protocol anomaly attacks with line rate performance
- Ensures application availability for legitimate traffic during malicious attacks

EX Series

The EX Series is the industry's only secure WAN management appliance with identity-based application visibility. By managing bandwidth and traffic with unprecedented user and application visibility, the EX Series helps organizations of all sizes secure, optimize, and scale their network edge and perimeter. WAN management functions are consolidated into an appliance with user identity capabilities, so organizations can simplify their management of edge services and increase performance and reliability for applications while simplifying troubleshooting, compliance, and identity forensic activities.

With the EX Series' advanced Feature Chaining capabilities, customers can mix and match EX Series features to customize WAN management solutions to fit their network requirements without sacrificing performance or adding unnecessary latency, unlike implementing point play products from multiple vendors.

The EX Series provides:

Instant WAN user visibility. Correlates between WAN application activity and user identity for top bandwidth usage, IM, file transfer, and email applications. Provides top user information for more than 100 business application classes for network tracking, troubleshooting, and compliance.

March 9, 2007

Advanced WAN optimization. Integrates link load balancing, advanced bandwidth management, site-to-site compression, and cache redirection to optimize and control WAN resources.

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Spotlight On **Chatsworth Products**

The Backbone Of Your SME

by Chris A. MacKinnon

WITHOUT COMPANIES such as Chatsworth Products, Inc. (aka CPI), small to midsized enterprises would lack spine (not in the figurative sense, of course). As an employeeowned company, Chatsworth Products manufactures structural support systems that help enterprises organize, store, and secure computer, data, and communications equipment. Included in the company's cardinal offerings are rack and cabinet systems, zone cabling and wireless enclosures, wall/ceiling/under-floor systems, and cooling technologies.

SME Back Support

Ian Seaton, product marketing manager for CPI, says his company has much to offer SMEs. He says the company's PatchRack, Global Vertical Cabling Sections, and Vertical Cabling Sections, for example, offer particular value to the SME because of their attractive pricing, immediate availability, and the flexibility they provide in terms of supporting incremental expansion of a facility.

Seaton notes that all three solutions have a mixed use for data and telecom and for copper and fiber. "The PatchRack, in particular," Seaton says, "can allow a small computer room to be cabled to the patching point at the cable runway, allowing purchase of equipment and equipment racks to be delayed until they are actually required by application use."

In Seaton's opinion, Chatsworth's rack systems, including wall-mount racks and wall-mount rack enclo-

sures, provide



CHATSWORTH PRODUCTS, INC.

cost-effective and functional solutions suitable for SMEs. "All of these solutions come with the robust features of our Standard Rack, such as reliable load-bearing capacities and roll-formed mounting hole threads, but in size and convenience packages that are conducive to offices and spaces not normally configured for computer and network equipment," Seaton says. He notes that the company's ThinLine Cabinet is especially appealing for tight quarters or spaces with limited traffic clearances because it allows larger rackmount equipment to be suspended vertically rather than mounted horizontally.

Chilled To The Bone

According to Seaton, CPI's cooling products represent the industry's most innovative approach to computer room equipment cooling. He says Chatsworth's Passive Cooling Solutions are innovative because no one else is doing anything exactly like it. "There are a handful of similar solutions," he says, "but they all include fans. We discourage fans for several reasons. Any fan is potentially a failure spot, and top-mounted cabinet fans have been demonstrated to actually cause hot spots. Fans can be obsta-

cles to airflow when the cumulative capacity of the fans in a cabinet exceeds the fan capacity in a return air duct."

Two components of the Passive Cooling Solutions, the Internal Air Duct and the Vertical Exhaust Duct System (both being thermal accessories for the TeraFrame Cabinet System), represent the level of value and innovation that Seaton talks about. Addressing this, he says, "First, thermal densities are increasing, which is creating problems. Everything from equipment failures to unexplained data anomalies are on the rise. Second, IT professionals are not typically comfortable with the mechanical

engineering areas of fluid dynamics and thermal dynamics. Third, there is a fixed relationship between air volume, temperature rise, and heat dissipation."

Page 9

Seaton says the limits defined by this fixed relationship mark where computer rooms start experiencing hot spots, primarily because equipment tends to begin a cycle of recirculating heated exhaust air to compensate for shortages of chilled air. He says, "Internal Air Duct addresses these conditions by using natural air convection to draw additional chilled air from under the access floor, up the side of the cabinet, and into the front of equipment mounted in the upper portion of the cabinet, where hot spots typically occur."

Go to Page 12

Company Information



Products

Company Name: Chatsworth Products

Location:

Westlake Village, Calif.

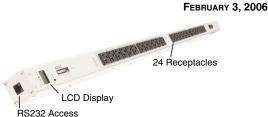
www.Processor.com/CPI

Date Company Founded: July 1991

Interesting Fact:

Chatsworth is a BICSI (Building Industry Consulting Service International) Platinum Prestige Corporate Member with more than nine RCDD (Registered Communications Distribution Designer) professionals.

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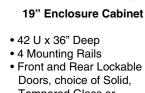
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A Better Ethernet With Woven Systems

Continued from Page 1 Quackenboss. "So what we're doing is fixing those limitations in Ethernet without violating Ethernet standards."

A New Solution

Still in development, Woven's switch family will let data center owners leverage the Ethernet standards they already know (and have already paid for) without the plague of latency problems that, with Ethernet, tend to rise in concert with data loads. Woven's technology allows data center owners to build large, multipath, meshed fabrics that overcome the scalability limits imposed by Ethernet spanning tree algorithms.

The firm has also developed a patented congestion management technique that

measures latency and redirects traffic to avoid bottlenecks and provide path failover in milliseconds, an improvement over Ethernet's well-known limitations (path failover, for instance, can take seconds). "One of the problems is it's a little like driving around a major city in rush hour," says Quackenboss. "The larger the number of highways and highway intersections, and the larger the volume of traffic, the worse the bottlenecks are."

He adds that Woven's products comply with current IEEE standards, meaning they'll operate with existing 10Gb Ethernet NICs, switches, and routers, a prospect that could make Woven attractive to data centers that are wary of vendor lock-in. Woven sees its strongest markets where the high-speed

Company Information



Woven

Systems

Company Name: Woven Systems

Location: Santa Clara, Calif.

URL: www.Processor.com/Woven

Date Company Founded: November 2003

Interesting Fact: Woven owns a patented congestion management technique that reroutes network traffic based on latency. Because data traffic tends to burst (as opposed to presenting a steady stream), latency measures in high-speed networks must be extremely fast—fast enough that hardware, not software, is a better option for measurement.

demand for data is most acute: Web 2.0 firms, ISPs, data centers where 10Gb server connects are deployed or about to be deployed, and of course high-performance computing, no longer consigned to research universities and well-financed labs.

Quackenboss says, "As servers continue to get bigger and faster, and as we help to drive down the price of 10-Gig connectivity and our NIC friends do the same, then we'll see 10-Gig servers become more mainstream over the next couple of years."

Virtualization Forecast

Continued from Page 1

spending \$1 billion or more in 2007 performing disruptive migrations, the proportional costs are comparable. "The basic problems remain the same for small, medium, or large enterprises—the need to access data when migrating data, better storage utilization, minimizing downtime, and so forth," Jim Ting, director of marketing at NeoPath, says.

Moreover, virtual storage technology can also save money because (at least, in theory) it works the same as its physical counterpart. While NeoPath predicts that more than half

NeoPath's Five File Virtualization Predictions For 2007

NeoPath Networks made the following five predictions for 2007. They are:

- **1.** File virtualization will grow by 300% in the next year.
- **2.** Disruptive migrations will cost Fortune 500 businesses more than \$1 billion in 2007.
- 3. Storage vendors will work together to create "system virtualization standards" so that data can be managed and migrated effectively regardless of vendor IP.
- **4.** There will be further consolidation in the market as larger players identify best-of-breed offerings and see the competitive advantage in adding these solutions to their portfolios.
- More than half of all virtualization solutions will be shipped with standard data protection software to increase data security and availability.

of all storage virtualization solutions will come with software designed to improve data security and availability, XenSource (www .Processor.com/XenSource) CTO Simon Crosby notes that administrators can use the same disaster recovery software that they are using with their physical servers. "It's OK if you want to use Veritas Backup Exec [www.Processor.com/SymantecCorp] today because you want to be able to work with the ecosystem that exists," Crosby says.

Consolidating Storage

Crosby says that file virtualization has yet to penetrate the SME market because it tends more to use commodity storage devices such as SATA and IDE drives, rather than the pricier SANs that large enterprises use. "The logic is, 'Our server has a hard drive, so why not use it?" Crosby says.

For his part, NeoPath COO Ali Zadeh says that a challenge that all organizations face is how they manage data between devices. "Let's say you have a new employee. You create a directory [for this employee], and it is like having an island of data within your environment, and if there is a disruption, managing these islands becomes increasingly complex," Zadeh says.

According to Zadeh, about 40% of an average IT budget is spent on storage. It does not make fiscal sense for an SME to have its IT staff, which may consist of a few great "IT guys," to spend an inordinate amount of time trying to wrangle this data off of various storage boxes no matter how cheap and commoditized these boxes have become.

No Downtime Allowed

"In order to do [conventional] migrations today, you have to stop access, move data,

and reconfigure clients, which means lots of evening and weekend overtime work on the part of system administrators. It's so costly because it's always an overtime project," Baratz notes. "Companies are realizing that they are spending lots of money on this process. In contrast, virtualization is a relatively elegant but straightforward approach that allows for migration 24 hours a day, and now what took a month to complete now takes a week."

One of NeoPath's clients, domain name registrar and service provider GoDaddy

(www.godaddy.com), found itself in a situation where 97% of its storage was being utilized. The company had to purchase new storage devices and migrate data to these devices without any downtime. "If GoDaddy is down for an hour, it costs [the company] millions of dollars," Baratz explains. Using NeoPath virtualization products allowed the company to complete its migration without losing a dime in downtime.

"When you're a global company, you can't afford to go down even if you don't have many employees," Baratz says.

What Is File Storage Virtualization?

Although virtualization often appears as a sort of catch-all word for any means of using other means to replicate physical processes on a network, several subsets exist, each of which require IT managers to consider their networks' needs.

File storage virtualization (or file virtualization or storage virtualization) concerns the virtualization of databases and the data stored on them. According to Alan Baratz, CEO of NeoPath Networks (www.neopathnetworks.com), file virtualization decouples the name space, directory structure, and physical structure of a network's database setup to put forth a single aggregated file structure that allows administrators to place data on unused storage space, migrate that data to low-cost servers, or back up to other means of storage for disaster recovery or high availability needs.

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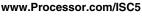
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Three Decades Of Electro Standards Laboratories

From Data Cables To State-Of-The-Art Technology

by Elizabeth Millard

WHEN ELECTRO STANDARDS Laboratories opened its doors in 1976, data and telecommunications was a fledgling industry that hadn't yet attracted the kind of competition that it would later enjoy.

But founder Ray Sepe, now president and CEO of the Rhode Island-based firm, believed that the industry would not only grow but that technology itself would be a driving force for the future. Anyone who takes a look around a contemporary data center, or even glances across a notebookladen coffee shop, can appreciate that kind of forward thinking.

"We started as manufacturers of products that came out of advanced technology and found ways to bring them to a wider audience," says Sepe. "Our goal was to lead the way with new products."

The company went from an initial product line that included data cables, data switches, and breakout boxes to a range of products and services that came out of its internal research and development department. Over the years, Electro added connectors and adapters, surge protectors, network

services, materials testing products, and motion control gear. The company has also incorporated fiber-optic switches, load cell electronics, digital signal processor-based electronics, and even hybrid electric vehicle technology.

Electro Standards Laboratories

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"I started the company with a belief in data communications as the way forward," says Sepe. "But it's expanded in directions that have been surprising and exciting."

Model Citizens

Engineering must have been in Sepe's genes because his three sons all received degrees in the discipline and joined the company after their college graduations. Each heads a main division: Research and Development, Network Services, and Materials Testing and Data Acquisition.

Although there is a family feel to the business, thanks to the strong Sepe presence, it's not run as a family business, says paterfamilias Sepe. Instead, each son is

growing and expanding his area and focusing on the company mission to create products that are innovative but still in sync with the rest of the business.

"Everything here works in concert, like an ecosystem," says Sepe. It's the same model that he saw before starting the company, when he worked at Bell Labs. When

putting Electro in place, he wanted a similar structure, where quickly changing technology such as

switches wouldn't be hindered by too much operational bureaucracy.

By developing a company where research is dependent on network services, and materials testing is reliant on development, Sepe believes that the company has a sense of cohesion that propels product creation.

"You have to be careful in the technology industry that you have a company that doesn't become archaic because it can't move fast enough," he notes. "With this model, there isn't a piece you can take away; each is important to the survival and operation of the others. That makes for a streamlined, fast-paced development cycle."

Service Station

The division that serves smaller enterprises most directly is Network Services, which designs and installs data, telephone, and fiber-optic systems. Most data center managers at small to midsized enterprises—and even at larger companies—don't have in-depth knowledge of copper, fiber, and wireless data communication systems and how they might be combined for optimum network performance. Electro's consultants can also advise customers on

Go to Page 13

Company Information



Electro **Standards** Laboratories Company Name: Electro Standards Laboratories

Location: Cranston, R.I.

URL: www.Processor.com/ElectroStandards

Date Company Founded: 1979

Interesting Fact: Founder, President, and CEO Ray Sepe jokes that he could grow the company faster if he had more children to join the business; each of his three sons is in charge of a main division at the company.

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IT Automation With KACE

Specializing In Accessible Systems Management

by Ericka Chickowski

ONE OF THE BIGGEST challenges that small to medium-sized enterprises face is managing their increasingly complex technology environments with limited resources. Not only do they often not have the capital to invest in robust management systems, but they also lack the specialized IT staff to run them.

"In the midmarket, complexity is growing: more types of computers, more operating systems, more back-office and frontoffice systems to manage," says Rob Meinhardt of Mountain View, Calif.,-based KACE. "These businesses historically

Company Information



Company Name: KACE

Location: Mountain View, Calif.

www.Processor.com

/KACESystems

Date Company Founded:

Interesting Fact:

KACE is backed by investors that include Sigma Partners of Menlo Park, Calif., and Norwest Venture Partners of Palo Alto, Calif.

haven't had access to the same types of business management environments available to the big guys because they have more generalized IT people."

As co-founder of KACE, Meinhardt and his partner Marty Kacin have been striving to make it easier on these general IT staffers to keep up with their larger competitors. Founded in 2003, KACE develops a line of IT automation products.

"Our mission from the beginning was to deliver appliances that automate IT business processes," Meinhardt says. "That is beach front on the systems management and security management space."

Sizing Up The Competition

There is already pretty tight competition and attention on the systems management market. Just in January, Symantec (www .Processor.com/SymantecCorp) paid \$830 million in a blockbuster deal to pick up Altiris (www.Processor.com/ATRS), based in Lindon, Utah. Meinhardt says that his company competes with Altiris, LANDesk (www.Processor.com/LANDeskSoft), and even HP OpenView (www.hp.com). But he believes that KACE is able to get a leg up by providing midmarket companies with something they can both afford and manage easily. According to Meinhardt, KACE's competitive differentiators focus on three tenets: ease of use, affordability, and completeness in offered features.

'Our secret sauce relative to those players is that we are trying to make these solutions, which have historically been relatively complicated, trying to make them more accessi-

ble to the market that we describe as the 'Fortune 100,000'—that is, every company that isn't in the Fortune 1,000," Meinhardt says. "It is kind of our clever way of talking about the high end of the midmarket. So that really is our calling card, focusing on ease of

use and an all-in-one solution that can be

deployed at an affordable price point."

KACE

KBOX Ins & Outs

That all-in-one approach is achieved through an AbSD (Appliance-based Software Delivery) architecture, which is built on the KBOX line of appliances, Meinhardt says. "The KBOX product suite provides complete endpoint lifecycle management that's for endpoints, laptops, desktops, or even server infrastructure," he says. "We really help manage those systems cradle to grave."

This starts with new systems provisioning, he says. This can be very beneficial for an organization deploying new servers en masse or refreshing its laptops or desktops, a configuration process which can be

nightmarishly time-consuming and errorridden when done manually.

"What we do is we allow for a zero-touch deployment," he says. "So in the server example, you'd plug the servers into the network, let them contact the KBOX, and let us take over from there. We'll wipe the computer clean, we'll put the operating system down, we'll put the security software down, we'll set the configurations, and we'll put your business applications in for you."

Later on in the life cycle, KBOX products will help by inventorying endpoint systems and creating reports that allow administrators to plan software deployments, operating system upgrades, and patch rollout, Meinhardt says. He says it also lets them better enforce configuration setups and IT policies.

Though the automated software rollout is a big selling point, many KACE customers are

> especially won over by the inventory feature.

"Initially, Renovis was looking for a software push solution, but what we ended up getting was much more," says Mark Bernfield

of the biomedical firm Renovis. "We didn't realize there would be such a great inventory feature. We actually ended up getting rid of our asset management program in place of the KBOX because we could delve more deeply into the systems."

To make all of these functions easy to use, KBOX appliances use a drag-and-drop GUI to simplify flow control for change management. They also integrate problem solving into the workflow application, Meinhardt says.

"We kind of tied a bow around it with what we call our IT workflow application," Meinhardt says, "which allows our IT customers to manage the tasks that are coming inbound on their network. Trouble tickets come into the KBOX and become totally integrated into the solution that allows these IT managers to fix the problem."

Though the automated software rollout is a big selling point, many KACE customers are especially won over by the inventory feature.

Spotlight On Chatsworth Products

Continued from Page 9

Chatsworth's Vertical Exhaust Duct System aids cabinets in effectively functioning as the barrier in the room between the A/C source air and the return air, thereby removing hot air recirculation as a source of

hot spots. Seaton says there is no longer a need for chilled air to be delivered directly to the equipment through a perforated access floor tile in front of the equipment. "In fact," he says, "there is no need for an access floor anymore, which may be of particular interest

to smaller companies or facilities with smaller computer rooms. We have customers running up to 23kW per cabinet using the TeraFrame Cabinet and the Vertical Exhaust Duct System and a customer that is developing a facility in which they plan to load the cabinets up to 30kW."

Seaton says Chatsworth's Passive Cooling Solutions are typically 1/10 the cost of chilled water cabinets, which, he says, have been vocally advocated as the only solution for these higher-heat densities.

He also notes that construction costs for a new facility designed around the Vertical Exhaust Duct System run around \$6,000 per kilowatt, as opposed to \$12,000 and higher per kilowatt for chilled water cabinet implementations.

Chatsworth has recently made a heavier push to expand its sales offices, regional supply capabilities, and distributor relations internationally, so that the company's products are more readily available to customers worldwide.

COMPONENTS

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Improved Connectivity For Servers & Storage

Mellanox Introduces 4th-Generation InfiniBand Architecture

THE GROWING DEMAND for better application performance is driving the increased adoption of clustered servers and server virtualization on top of multicore processors. But connecting these servers in a way that maximizes their performance poses I/O connectivity challenges. Many current solutions are inadequate for the demands of tomorrow's server and storage networks.

Mellanox, known for its advances in InfiniBand technology, has created the



ConnectX architecture to address the data center need for cost-effective bandwidth. improved quality of service, and protection of an enterprise's infrastructure investment.

ConnectX enables integration of extraordinary levels of functionality into a single adapter chip. It supports eight lane PCI Express v1.1 and v2.0 interfaces as the host

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ConnectX offers building blocks for designing server and storage connectivity solutions. Service-oriented I/O ensures scalable and granular QoS for a converged set of data center applications, in both native OS and virtualized server environments. Multiple network and storage connectivity

options on a single ConnectX adapter enhance the server OEM's target markets and time to market. And end users can depend on ConnectX for incremental and demand-based I/O growth and scaling.

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Server Technology: A Look Inside

Remote Power Management At Your Fingertips

by Julie Sartain

IN MANY REMOTE or smaller locations where power redundancy is not available, temperatures can reach critical levels in minutes if the cooling shuts down. This is especially significant in remote locations, equipment cabinets, and other data center facilities where uptime is essential.

Located in Reno, Nev., Server Technology designs and manufactures intelligent power distribution products for enterprise data centers, service providers, and branch office locations, says Calvin Nicholson, marketing manager at the company. "We were founded in 1984 and have become a recognized leader in innovative remote power management solutions."

Server Technology's array of sentry power products eliminates unnecessary trips to remote locations and minimizes the impact of locked-up internetworking equipment on business-critical networks, notes Nicholson, combining intelligent power distribution, remote management, and power measurement. "We're focused on just PDUs (a complete line of AC products, DC products, and a line of fail-safe transfer switches). We also have the largest group of engineers of any manufacturer focusing just on the PDU marketplace."

Managing CDUs

Server Technology is the first company to offer data center managers the ability to automatically manage CDUs (Cabinet Power Distribution Units), power outlets based on key operating parameters such as temperature, in-feed load current, and UPS power status.

"Each outlet on the CDU can be controlled by one or more of these parameters," says

Temperature Load Shed (Case 2):

Server Technology's CDUs can support two temperature probe measurements, says Nicholson. These devices can be load shed based on one or both of these temperature probes that exceeds a set limit. This ensures that if the proper cooling is lost, the devices can be shut down to avoid further heating problems and equipment damage.



Nicholson. "If the temperature or load current exceeds defined thresholds, or the UPS loses power and goes to battery, all or a portion of the loads can be automatically shed. This 'Smart Load Shedding' feature ensures uptime with a longer operational life of critical devices."

There is not another product on the market today like this. Server Technology's switched CDU products monitor temperature, current load, and the status of the UPS (current load and temperature are integral measurement parameters within the CDU and are constantly monitored). Communicating via SNMP, the CDU regularly polls the UPS for its power state, Nicholson says. It functions as follows:

UPS Load Shed (Case 1):

If the UPS loses power and requires the battery, all noncritical devices are automatically load shed based on the outlets' smart load shedding configuration. This information is easily created and stored within the CDU's integral user interface.

Current Load Shed (Case 3):

According to Nicholson, the devices can be load shed based on the current load of the connected devices becoming too high. This protects the overall load by not allowing the current load to exceed the rating of the device and tripping an over-current protection device either on the CDU or back at the breaker panel, which would unintentionally shut down some connected devices.

One Of A Kind

According to Nicholson, there are no direct competitors on this particular product. Although some UPSes offer load shedding when the UPS goes to battery, they can only load shed per output, which means they can't load shed specific devices. In addition, when load shedding with a UPS, devices cannot be load shed based on two temperature measurements in the cabinet or based on the in-feed current load. Other manufacturers produce CDUs, but none of these devices have the advanced monitoring

and control capabilities that Server Technology offers.

Server Technology is offering the Smart Load Shedding feature to its existing switched CDU CW/CX customers for 90 days at no cost, so they can evaluate how well the product works. Version 6.0 firmware is also free and available for download on the Web site for customers to use on any of Server Technology's switched CDUs.

New features in 6.0 include a remote shutdown agent (for graceful server shutdown), Smart Load Shedding, power information, and LDAPS (LDAP over TLS/SSL). If one or more of the devices being shed is a server, notes Nicholson, a graceful shutdown may be accomplished via a remote shutdown agent, which intervenes before power is shut off to the device to protect valuable data. It's compatible with Windows, Linux, HP-UX, Sun Solaris, AIX, and Netware operating systems. The remote shutdown agent is independent of Smart Load Shedding, and a CDU that is capable of working with a remote shutdown agent can also provide a graceful shutdown of servers during a standard remote reboot if a server locks up.

Nicholson says, "In conclusion, future plans are to continue advancing unique software products moving forward as the CDU becomes a more integral part of the equipment cabinet and the device controls."

Company Information



Server

Technology

Company Name: Server Technology

Location: Reno, Nev.

www.Processor.com /ServerTech

Date Company Founded:

1984

Interesting Fact:

Server Technology won the Frost and Sullivan Award for Competitive Growth Strategy last year.

Three Decades Of Electro Standards Laboratories

Continued from Page 11

newer technologies such as satellite and microwave and share insight on security issues that might put companies at risk.

Although other companies make fiberoptic switches and the type of products that are bread-and-butter to Electro, Sepe notes

that the company has an advantage in its speed of communication to customers. For SMEs, the ability to get questions answered within 24 hours can be particularly beneficial. Also, the company's focus on getting components and products together in a way that's customized is unique in the industry.

Sepe compares the production method to Dell (www.dell.com), which has an assembly line that can put together a custom computer quickly, following customersupplied specifications. In the same way, Electro can put together products requiring switches and fiber optics that will be geared toward a specific company. "It's like there's a production line in place just for that customer," he says. "It took some time to develop the internal expertise necessary to do custom fabrication, but it was worth the effort."

Electro also has quick response time for the services that are part of many of its installations. Its ESL Sentry Monitoring System is a popular choice for SMEs because it provides constant availability of network services and devices, combined with alert features that let IT departments know when there are issues with a local-area network.

"About 99% of our new customers are surprised at how quickly we can solve their problems," says Sepe. "We're fast, innovative, aggressive, and, most of all, we enjoy what we do."

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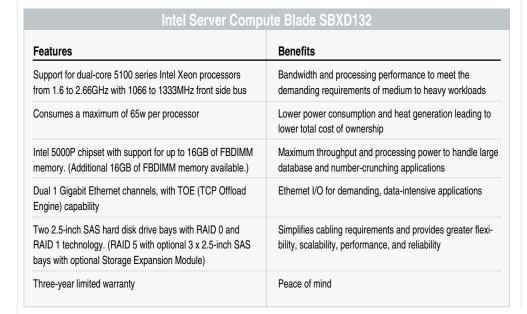
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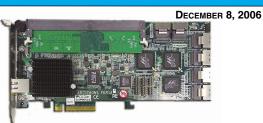
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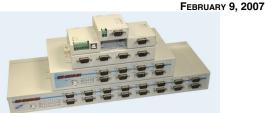
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COMMUNICATIONS

Network & Systems Management

■ Aruba Networks announced an enhanced version of its Aruba Mobile Edge Architecture for the healthcare industry. The new platform can help network administrators build secure, multiservice mobility networks that adhere to HIPAA regulations. Capabilities of the new platform include patient monitoring, patient safety and workflow management, voice management and control, and more. Security comes in the form of integrated WIPS, role-based access control, and Quality of Service capabilities.

Wireless

■ Alcatel-Lucent introduced its CDMA-2000 (Code Division Multiple Access 2000) mobile network solution for the 700MHz spectrum band. Based on CDMA2000 1xEVDO (Evolution Data Optimized) Revision A technology, the enhanced solution supports the needs of public safety organizations. New services include secure, high-speed access to critical

information; the ability to share multimedia data, images, and video; push-to-talk services; and location identification services. It also will enable access assurance, which guarantees specific users network access during times when network traffic may be high. Alcatel-Lucent's commercial CDMA2000 products include the Alcatel-Lucent CDMA Modular Cell 4.0 Compact and Radio Network Controller. In addition, Alcatel-Lucent is developing the necessary operations and network management software needed to support public safety services including authentication and encryption capabilities that provides users with secure access to certain services.

■ Willtek announced that the 9102 Handheld Spectrum Analyzer can now operate at frequencies up to 7.5 GHz. Applications covered by the 9102 Handheld Spectrum Analyzer in 7.5 GHz frequency include aviation signals, directional radio, VSAT (very small aperture terminal), and signals in the 5 GHz unlicensed band, such as WLAN and WiMAX. RFID signals can be analyzed in a zero-span mode. The 9102 also supports applications

with accessories for cable fault finding, EMC and radiation measurements, and fault finding in 3G mobile phones.

Security

■ WIN Enterprises released the PL-01033, which is a 19-inch 2U network security appliance that offers 10GbE ports. The device has one USB 2.0 port and one console port, as well as two 64-bit PCI-X 100MHz slots and a mini PCI slot. It also has two 3.5-inch hard drives and a keypad and supports dual Intel Xeon processors with 800MHz FSB. The PL01033 is available for \$2,912.

END NODES

Monitors & Displays

■ 3M announced the 15-inch 3M Micro-Touch M150HB High Brightness LCD Touch Screen Monitor for POS applications in high-ambient light environments. The MicroTouch M150HB screen monitor features a 550-nit/500:1 contrast ratio display. The MicroTouch M150HB screen monitor is available with or without a stable monitor stand to allow for either

counter or arm-mounted environments. The MicroTouch M150HB screen monitor is RoHS compliant and has a 3M MicroTouch ClearTek II capacitive touchscreen and USB interface.

■ Eizo has introduced two wide-format LCDs, the 21-inch ColorEdge CE210W and 24-inch ColorEdge CE240W models. Both widescreen LCDs have 8ms midtone (gray-to-gray) response times, ergonomic designs, color management abilities, and more. Additionally, the LCDs feature 16:10 aspect ratios and 1,680 x 1,050 and 1,920 x 1,200 native resolutions, respectively; bundle ColorNavigator CE software; and have 450cd/m² brightness, 1,000:1 contrast ratios, and dual DVI-I inputs and a USB 2.0 hub. The ColorEdge CE240W and CE210W will both ship this month with

■ Planar released the LB1500RTC, which is a bright 550cd/m², scratch-resistant, open-frame display that offers capacitive touchscreen capabilities. Planar is targeting the LCD at rail information, retail, and *Go to Page 17*

five-year warranties.

Complete Network Performance Management

NetQoS Brings It Together In A Single Console

by David Gilbert

WAN TECHNOLOGY is essential for geographically diverse business enterprises. There is always the necessity to maintain connectivity, but beyond that, there is the need for performance monitoring and proactive management of traffic and applications. This is where the NetQoS Performance Center comes in.

IT staff at all levels (engineering, operations, and management) can use this product to gather vital information about network traffic that can then be used for strategic planning purposes as well as a technical troubleshooting tool. This Web-based console enables true global vision, making the product useful to even the largest organizations. The console is able to gather real-time data about network usage and then store it for up to one year of historical analysis. This enables the system to construct reports that

SNAPSHOT

NetQoS Performance Center

There is no charge for the Performance Center with the purchase of any other NetQoS product.

Gives companies insight into their WAN performance with global scope

www.netqos.com

incorporate the raw data as useful information about a wide spectrum of metrics. Realtime collection also captures "baseline" trends that are useful for performance comparison and troubleshooting purposes.

The NetQoS Performance Center gives many advantages to network managers for the large enterprise. This tool makes it possible to answer important questions about network performance by measuring end-toend response time, traffic flows, and device

performance data. By viewing the customizable reports, users can see the effects of configuration changes, find hidden performance problems, or identify potential security breaches. This is a comprehensive product with the degree of sophistication and scalability that global enterprises need.

The key element responsible for the NetQoS Performance Center's differentiation is its passive data collection technique. By not using agents or probes, the Performance Center is able to gather the necessary statistics in a way that is cheaper, faster, and easier than alternative methods employed by rival

NetScout, along with CA (since their acquisition of Concord; www.concord.com) and InfoVista (www.info vista.com) are the principle competition for NetQoS in this market.

Chandra Hosek, public relations manager for NetQoS, explains the company's vision for its product: "NetQoS is attempting to change the way network management is traditionally done by persuading organizations to shift from a device-centric to an application performance approach." Explaining the logic behind this statement, Chandra says, "By putting application performance at the

The NetQoS Performance Center gives many advantages to network managers for the large enterprise.

products. One example of such a probebased management product is the NetScout Systems' nGenius Performance Manager (www.Processor.com/NetScoutSystems). core of network management strategies and practices, organizations can make real infrastructure improvements instead of merely being reactive to device availability."

WIRELESS FEBRUARY 2, 2007

Better Wireless Networks

BumbleBee-TABLET Provides Clear Installation, Coverage & Interference Analysis

BERKELEY VARITRONICS SYSTEMS' BumbleBee-TABLET takes the power of sophisticated laboratory spectrum analyzers and delivers it to installers in the field and network engineers in the lab. With the BumbleBee-TABLET, enterprises can capture, display, and record wire-

less spectrum data for better installation, coverage, and interference analysis.



BumbleBee-TABLET is a Windows XP-based tablet UMPC spectrum analyzer. The calibrated receiver can measure the popular wireless bands, including Wi-Fi, WiMAX, and Bluetooth. A 2.4GHz or 5GHz directional corner reflector makes tracking interference sources easy.

BumbleBee-TABLET includes a 7-inch WVGA LCD touchscreen and an Intel

processor. A 40GB hard drive lets you store and play back captured radio frequency spectral network installation, coverage, and interference data in the field. Advanced spectrum analysis features include user-selectable power triggers, three pairs of markers, spectrogram, histogram, video smoothing, waveform averaging, and one live trace and up to four peak hold waveform traces with peak hold and peak search.

Optional Honeycomb Interference Mapping Windows XP software can be run right on BumbleBee-TABLET hardware while still in the field or later as a desktop application. The Honeycomb software consists of three parts: Projector, Collector, and Analyzer. Sources of interference can be separated from 802.11 WLAN signals, allowing the user to graph severity of interference, percentage of channel capacity

remaining, and other significant interference related quantities. Floor plans or site maps can be used as a reference to collect data; the resulting interference maps can be overlayed onto floor plans for easy identification of interference-prone areas.

Berkeley Varitronics
BumbleBee-TABLET

Provides powerful wireless network analysis capabilities in a tablet PC form

(732) 548-3737

www.Processor.com/BumbleBee



Continued from Page 16 hospitality industries. The display integrates into kiosk enclosures, is compatible with 75mm VESA standard mounting options, and has a USB interface.

Server

- Adlink has announced AdvancedTCA building blocks, which includes processor blades, hub switch blades, control modules, and chassis. Processor blades are offered in a dual-processor configuration, with the Low Voltage Intel Xeon 2.8GHz with 800MHz system bus, and in a singleprocessor configuration, with the 3.2GHz Intel Xeon with 800MHz system bus. The hub switch supports a PICMG 3.1 Ethernet backplane interconnect and provides 24 Ethernet ports and chassis support for 14 slots. Chassis management modules are PICMG 3.0-compliant. The Rackmount chassis is a 5U system.
- Bull Escala POWER5+/AIX servers are now available from GST. They're aimed at enterprise to SME users and are compatible with IBM's P Series server line. Prices start at \$13,302 with a discount. Model numbers, prices, and available configurations vary.

Point Of Sale

■ Protech Systems released a new POS terminal, the PS6506. It has an Intel

855GME chipset, supports Intel Celeron M and Pentium M processors, has integrated Intel Extreme Graphics 2 video, and starts with 256MB of memory. (Customers can upgrade to 1GB.) The terminal has a 40GB hard drive, a 15-inch waterproof TFT LCD at 1,024 x 768, and a small footprint. It supports WEPOS/Windows 2000/XP/XPE and Linux. The terminal also has a 10/100 port, four COM ports, three USB 2.0 ports, one VGA port, and an RJ-11 port for cash drawers. It also has a parallel port and two PS/2 ports. Customers can add 802.11b/g wireless connectivity, as well as an i-Button and a bootable CF card slot.

.

■ Motorola announced the latest addition to its AdvancedTCA Communications Server portfolio, the Avantellis 3000 series. The common platform supports the deployment of multiple applications, including wireless infrastructure, packetized voice, wireline data, and cable network head-end equipment. The Avantellis 3406 offers enhanced functionality, including RoHS (5 of 6) compliance, thereby eliminating the need for customers to incur the time, resource, and expense associated with creating and/or converting an existing product to meet the international requirement. The first Avantellis 3406 systems are expected to be available for customer evaluations by the middle of this year.

Server **Appliance**

- Accellion has introduced Accellion Courier Secure File Transfer Appliance 5.5, which includes new tracking and reporting features for electronic file transfers. The appliance provides confidentiality, data integrity, and identity services. With the appliance, users can receive large secure files, log file access history, add CC and BCC recipients, and access diagnostic tools.
- Barracuda Networks has announced its 3G release of Barracuda Spam Firewall. This product defends against image spam and includes a multipass OCR engine that can detect text hidden behind fuzzy images or embedded in animated GIFs. It also includes fingerprint generation to more easily detect previously identified image spam. The software receives hourly Energize Updates with the latest spam-detection data. Barracuda Spam Firewall pricing starts at \$1,499.
- The new Infoblox-2000 is a network service appliance from **Infoblox** that provides core functions such as DNS, DHCP, IPAM, RADIUS, TFTP and HTTP, NTP, and more. It runs the NIOS 4.1 operating system, which has new enhancements such as

support for secure DDNS using GSS-TSIG. Pricing starts at \$4,995.

■ Lantronix has announced the release of its IntelliBox-I/O 2100, which the company says is the industry's first fully programmable external device server that automates managing remote equipment and associated reporting. The 2100 is powered by the company's EventTrak technology. Using the technology, the 2100 lets customers connect industrial, commercial, medical, retail, and security equipment to IP networks and the Internet. This allows for automatic monitoring and responding to events in real time without human involvement. Users can configure the device to monitor continuously or for specific periods, as well as perform responses based on triggered events. Responses can include rebooting, reconfiguring attached equipment, triggering an alarm, and more. The IntelliBox-I/O 2100 is \$395 and will be available in this quarter.

Storage

■ BlueArc has announced that its Titan 2000 line of network storage products now includes new clustering capabilities through four nodes, a Titan blade module, and dynamic multinode read-caching functions. Customers can now take advantage of more

Go to Page 18

Reliable Power For High-Demand Applications

Leviton PDUs Ensure Your Power Is Always On

by Drew Robb

POWER MANAGEMENT HAS become a major issue in recent years. And the 2003 East Coast power shutdown may just be the beginning of an alarming trend. "Over the next five years, power failures and limits on power availability will halt data center operations at more than 90% of all companies," says Jill Eckhaus, president of AFCOM, an association of data management professionals based in Orange, Calif.

Not surprisingly, computer rooms are paying more attention to power management tools. A power distribution unit, for example, is a device that distributes electric

power from high-voltage lines and scales it down to amounts that can be fed into IT gear. These days, they often come with advanced power management features.

Leviton Voice & Data of Bothell, Wash., a division of Leviton Manufacturing Company, has introduced its P1000 Series of rack PDUs. Aimed at data centers, computer rooms, and environments that require 24/7 power, they come either as vertical or horizontal boxes in a wide range of configurations. The P1000 includes a steel enclosure, circuit breakers to prevent overload, diagnostic LEDs (for power, grounding, and polarity) and 10 to 24 outlets, depending on the model. 120V and 208V versions are available in various amperages.



SNAPSHOT

Leviton P1000 Series PDUs

Start at \$85.99 and can range up to \$279.95, depending on the configuration

Bring reliable power close to equipment that needs it and provide robust protection against overload

www.Processor.com/P1000

Mark Guymon, director of power solutions at Leviton, says the reason for this "always on" product is growing power demand. "In the past where a data center might have used 40 watts per square foot, some data centers are trending to 400 watts per square foot," he says. "Consequently, there is a growing need for PDUs that supply higher amperages such as 30 amps and higher voltages such as 208V."

The P1000 mainly competes with the Basic Rack PDU Series by APC (www .Processor.com/APC) and the PDU Series by BayTech (www.Processor.com/Bay Tech). All three beat out a host of cheaper imitations that are typically unsuitable for always-on deployment. APC's products have the greatest global flexibility including units with 230V input power, which are in demand in Asia and Europe.

BayTech's strength is dual-input power within one PDU. The P1000 Series is primarily aimed at high-demand power environments in the Americas. It is particularly strong on 208V power. Most 208V PDUs only use single-pole breakers. This means that a user is still at risk even though the circuit breaker has tripped because one line remains live. The P1000's dual-pole circuit breakers provide extra protection at 208V.



Restore and Maintain Peak Performance

Seven things you need to know about fragmentation a special report

You know the importance of maintaining system performance and reliability. Your team is the one called to the rescue when systems crash, slow down or freeze. Many of these issues stem from a single, hidden source: disk fragmentation.

1. Reliability issues commonly traced to disk fragmentation:

Crashes and system hangs/freezes; slow boot times and boot failures; slow back up times and aborted backup; file corruption and data loss; errors in programs; cache issues; hard drive failures.

2. The weak link in today's computers:

A computer is only as fast as its slowest component. The disk drive is by far the slowest of the three main components of your computer: CPU, memory and disk.

3. Is automatic defragmentation needed in today's environment?

More than ever! Large disks, multimedia files, applications, operating systems, system up-dates, virus signatures — all dramatically increase the rate of fragmentation. Fragmentation increases the time to access files for all common system activities.

4. Increased server uptime:

Fragmentation can cripple server performance resulting in downtime and lost production. Diskeeper can easily and safely be used on your servers including: file and print, web, domain controllers, SQL, Exchange, and any other database or application servers.

5. Virtualization and fragmentation:

Server virtualization can be used to reduce the number of physical systems for more efficient CPU utilization. However, the disk subsystem must now account for increased disk I/O. Fragmentation is the primary cause of unnecessary I/O overhead. Defragmentation is more important than ever for maximum performance.

6. Hidden scheduled defrag costs:

Scheduled defragmentation is not "free" it has heavy hidden costs, such as IT time to set and monitor defrag for every system. This results in either staying after hours to defrag, giving the users administrator privileges, break-fix handlings, or more often no defrag whatsoever.

7. How do I find out how much fragmentation I have?

Download a free trial of new Diskeeper 2007 at:

www.diskeeper.com/Pro07

Install it, select a volume, select Analyze and view the report.

Every system you manage needs Diskeeper for enhanced file system performance



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shared storage pool, and 512TB in a single namespace. BlueArc supports as many as 32 virtual servers, and dynamic read caching is an optional feature.

Continued from Page 17

than 1 million IOPs, 3GBps of throughput, a

■ CipherMax has introduced its CM100 family of storage-encryption products, including those for tape media and diskbased storage networks. CipherMax says the product line gives companies a lowcost way to immediately implement storage encryption and provide the capability to scale up to hundreds of encryption ports when used with the company's CM250 and CM500 systems. Additionally, the CM product family can be deployed and managed from one global interface. Products within the CM100 family include the CM110T, CM140T, and CM180T for tape media; CM180D for disk-based systems; SanCruiser; and KeyCruiser. All but the CM140T and CM180T are available now. The other two models will be available in Q2.

■ HP introduced a new disk-based backup and recovery system. The HP Storage-Works D2D Backup System automates and centralizes backup to provide data protection for up to four servers. The HP D2D Backup System integrates into existing network-based IT environments. Daily backups become fully automatic, reducing the risk of human error and hardware problems. Restoring lost or corrupted files also becomes easier because backup data is stored online. The HP D2D Backup System features an iSCSI interface that plugs into a standard Ethernet network and a setup wizard to help with configuring the device. The HP D2D Backup System is also available as a discounted bundle that includes the HP Data Protector Express Software Kit.

■ Imation announced the first inkjet-printable and water-resistant Blu-ray media. The discs are compatible with Blu-ray disc players and recorders, including the Primera Bravo XR-Blu Disc Publisher and the Bravo SE Blu. Capable of storing up to 25GB of data, the media's AquaGuard technology offers a white, smear- and

water-resistant inkjet printable disc surface for professional disc prints.

Product Releases

■ Nexsan Technologies announced its Assureon SA Searchable Archive Appliance, a disk-based archiving solution for

secure archiving capabilities of up to 20 million documents. Assureon SA is a second-generation CAS (Content Addressable Storage) appliance with a secure storage architecture that delivers constant monitoring of file integrity, lifecycle management, file authentication, missing file alerts, and support for remote replication. RAID 6 prevents the risk of data loss even if two drives fail, and WORM (Write Once, Read Many) disk functionality provides nonerasable, nonrewriteable functionality. With Assureon SA, users can search for documents by date; special fields such as title, location, size, and author; and keywords and phrases. Document-level security ensures that users will not see documents if they do not have

Thin Client

access permission.

■ **Neoware** announced the Neoware m100 thin-client notebook, which the company is targeting at healthcare organizations. The notebook offers data security, better data management, and lower total cost of hardware ownership and lets healthcare personnel use the notebook away from the office without exposing important data to risk. Neoware offers ActivIdentity (proof of identity services), Ergotron (mounting products), and Gemalto, which offers secure personal devices, such as proximity devices, to healthcare organizations.

Components

■ Advantech announced the USB-4716, a 200kS/s 16-bit multifunction USB I/O module. The USB-4716 includes 16 single-ended, 16-bit 200kS/s analog inputs (eight differential); two 16-bit analog outputs; eight digital inputs; eight digital outputs; and a 32-bit event counter. It also includes WaveScan data-logging and trend-reporting software. The USB-4716 also includes Windows APIs, Active X controls, and LabView drivers. Prices start at \$630.

Know **Your Wireless** Network

WLAN Monitoring, Troubleshooting & Security Assessment

by Alan Petraske

To DO YOUR WLAN homework these days, you need an analyzer. One of the latest and greatest of these software tools for verifying, auditing, and analyzing a wireless network is AirMagnet's Laptop Analyzer 7.0 PRO. It helps IT staff quickly interpret enduser complaints and resolve performance problems while automatically detecting rogues, security threats, and other network vulnerabilities, including 802.11b/g conflicts, 802.11e problems, DoS attacks, and dictionary attacks.

A Find Tool quickly locates rogue APs (access points) and noncomplying devices that compromise network security. Detailed packet and frame analysis shows real-time packet flows, including speed, utilization, CRC errors, and media type. Laptop Analyzer 7.0 will also decode FTP, HTTP, SMTP, POP, and Telnet protocols, and its advanced filtering options enable the user to focus on individual conversations based on IP address or port number. The Interference Page performs continual Wi-Fi interference analysis to identify competition from other



■ Cypress Semiconductor released PSoC (Programmable System on a Chip) Express 2.2, a development tool for PSoC mixed-signal arrays. It now supports Cypress CapSense and Cypress WirelessUSB LP 2.4GHz wireless radio on a chip and lets engineers develop microcontroller-based designs without using assembly or C programming. The CapSense devices replace mechanical switches and controls—one CapSense device can replace dozens of switches and controls. PSoC Express is free.

Cypress also released an RDK (reference design kit) for designing wireless mice, keyboards, and dongles. The CY4672 RDK includes Cypress' AgileHID protocol to provide interference immunity and offers documentation and hardware schematics, as well as development tools, a bill of materials, and firmware. The designs use Cypress' KISSBind buttonless-bind technology. Other kit items include a CD-ROM with the documentation and other materials, a bridge/dongle, a keyboard, and a three-button ergonomic mouse that has an ADNS 3040 low-power optical sensor.

SOFTWARE

Business Productivity

■ CA announced new software available through its OnSite PC Protection Program for PC service technicians. The new bundle includes software from Corel, H&R Block Digital Tax Solutions, Iolo Technologies, Pure Networks, Siber Systems, and CA. The programs included are Corel's Snap-fire Plus, Paint Shop Pro Photo XI, WordPerfect Office X3 Standard, and WinZip Pro; H&R Block's 2006 TaxCut Premium and 2006 Federal + State Software; Iolo Technologies' Search and Recover, DriveScrubber, and System Mechanic; Pure Networks' Network Magic Premium; Siber Systems Roboform Pro; and CA's Internet Security Suite 2007, Anti-Virus 2007, Anti-Spyware 2007, Anti-Spam 2007, Personal Firewall 2007, Desktop DNA Migrator 2007, PC Pitstop Erase, PC Pitstop Optimize, and other SME desktop and server-protection products.

CA also announced Wily Manager for SiteMinder Web Access Manager, an addition to Wily Introscope for application management. SiteMinder provides identity and access management, as well as tools for monitoring the performance of SiteMinder Web server agents, application server agents, and CA TransactionMinder agents. Wily Manager also monitors SiteMinder Policy Server metrics, including version, port, cache availability, and cache size for Policy Server and individual SiteMinder agents.

■ EMC introduced its Documentum Process Suite, a business process management platform designed to analyze, model, orchestrate, and streamline a vast array of enterprise processes. Features include real-time and simulated process analysis and a scalable process execution engine. The offering is fully interoperable with EMC's family of information infrastructure offerings.

■ With version 5.04 of **Lieberman's** Service Account Manager software, Windows admins can collectively change dependencies, security, and auditing settings for services on any number of systems, the company says. It supports Windows NT/2000/XP/Vista/Server 2003/ Vista.

■ NetSupport released version 2.7 of its DNA asset management software, which now supports Windows Vista and has a software delivery component that's up to five times faster, according to the company. A new data cache controller optimizes high-traffic networks, and reports can be scheduled to run automatically with operator-specific views.

Database & Data Mining

■ Version 9.0 of the Monarch report mining and analysis software is now available from Datawatch. Monarch v9.0 supports Windows Vista and can export Excel spreadsheets up to five times faster, the company says. SharePoint collaboration support, encrypted PDF mining, and many other new features are also included.

Go to Page 20

Wi-Fi devices, the so-called 'hidden nodes' in the network. To identify non-802.11 sources of interference, users can integrate with AirMagnet's Spectrum Analyzer.

In addition, for live interactive network testing, a suite of active troubleshooting tools will quickly pinpoint such network problems as hardware failures, RF interference, and traffic/infrastructure overloads. Connections can be tested with traditional tools (DHCP, ping, traceroute), or you can run AP performance tests with AirMagnet's Diagnostic Tool to view the step-by-step progress of a connection between a client and AP, enabling you to pinpoint where the process has broken down.

And with this much capability, you can set detailed security policies, designate your encryption and authentication methods, and then monitor your wireless LAN to check all devices for compliance with these policies. An integrated reporting tool can turn the Laptop Analyzer Wi-Fi analysis

sessions into prebuilt reports, or you can build customized reports targeted to your area of interest. In addition, detailed

SNAPSHOT

AirMagnet Laptop Analyzer 7.0 PRO

\$3,995; \$3,495 for a standard version with a condensed feature set

Includes a state-of-the-art module for interference analysis; a simplified, effective user interface; plus support for the latest Intel Wi-Fi adapters and for the 4.9GHz public safety band

www.Processor.com/AirMagnet3

compliance reports for Sarbanes-Oxley, Basel II, EU-CRD (Cad 3), ISO 27001, FISMA, HIPAA, PCI-DSS, DoD 8100.2, and GLBA provide a step-by-step pass or fail assessment of each section of the standard. This allows you to complete the reporting with a minimum of time and effort.

An integrated reporting tool can turn the Laptop Analyzer Wi-Fi analysis sessions into prebuilt reports.



iStor found inspiration when it created the highest performance, up to 1160 MB/s, and most robust iSCSI products. The resulting solutions provide companies with the ability to overcome technology and total cost of ownership limitations in DAS, SAN, and NAS environments.



The System

Fully-integrated GigaStorATX 1GbE and 10GbE controllers conform to the ATX form factor specifications, providing a cost-effective performance-based iSCSI Storage System.



The Solution

For VAR's and System Integrators that require a vendor-provided enclosure, iStor offers the iS326 Solution. The iS326 includes the GigaStorATX System supporting eight ports of GbE or a single 10GbE for iSCSI connection, with capacity for up to 15 customer-supplied high-capacity sATA drives.

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WWW.MICROLANDUSA.COM

Continued from Page 19

Messaging & Groupware

■ Sybase iAnywhere announced the addition of mobile IM and presence abilities to the company's Information Anywhere suite. Sybase says the enhancement addresses the demands that mobile workers today have concerning increased productivity and collaboration and meets these concerns by offering support to extend email systems in the enterprise and IM platforms for various mobile devices. The new mobile IM and presence technology will provide the Anywhere suite with logging and routing abilities, thus ensuring compliance with corporate auditing policies. The technology is expected for availability in Q2, and pre-requests for a 30-day trial are being taken.

Network & Systems Management

■ Ardence announced the release of its Ardence RTX version 7.1. In addition to including multicore support, RTX7.1 includes IPv4 and IPv6 support via the use of Unicoi's Fusion Networking Stack, a scalable, portable protocol written in ANSI C that also serves as a processor, operating system, and compiler. Features in this version include Additional Network Cards support, a network driver wizard, an RTSS Object Viewer enhancement, platform evaluator enhancements, and XP embedded support enhancements. Ardence says RTX is deployed in industrial automation, military and aerospace, simulation, robotics, test and measurement, and medical devices. Users can download a free evaluation version.

■ Verastream Host Integrator 6.5 from Attachmate supports new browser-based interfaces to allow access to mainframe resources and data. It also supports 64-bit hardware and software. Attachmate says that version 6.5 offers a fast and secure legacy-to-SOA link between applications and mainframes.

■ Uptime Software unveiled up.time 4, an enterprise server monitoring and capacity planning software. The up.time 4 software

collects metrics on virtual server instances, including VMware ESX 3, AIX LPARs, and Solaris Containers. On VMware ESX 3, up.time 4 performs profiling, monitoring, and reporting on the virtual infrastructure. On AIX LPARs, customers can use their HMC to inventory all managed LPARs. The up.time 4 software can also send custom alerts to pagers, email, or SMS-based services.

Security

■ **Asigra** says that its Televaulting 6.2 software now supports IBM iSeries-AS/400 server environments. The agentless remote/branch office data security software is the first of its kind to do so, the company claims. Televaulting also supports AIX and Linux, as well as DB2 databases.

■ Elcomsoft released the latest iteration of its Advanced Office Password Recovery, which can help users obtain lost or forgotten passwords for protected Microsoft Office documents including Word, Excel, Access, Outlook, Project, Money,

.

PowerPoint, Visio, Publisher, OneNote, Backup, Schedule+, Mail, and more. Advanced Office Password Recovery 3.12 is available in a Home Edition, Standard Edition, and Professional Edition for \$49, \$99, and \$199, respectively.

■ Symantec released Norton 360, security software that combines Symantec antivirus, antispyware, firewall, intrusion protection, antiphishing, backup, and tune-up products. Norton 360 protects computers from Internet threats and risks, as well as data loss. The all-in-one security software also features transaction security to protect against online fraud and offers the ability to diagnose and fix common computer problems. Norton 360 is designed for mainstream computer users who require a comprehensive security solution with minimal user interaction. Customers who purchase Norton 360 can also receive AntiSpam and Parental Controls through an optional addon pack at no additional charge.

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Apparent Networks Targets Convergence

Network Diagnostic Tool Offers Faster Assessments & Increased Scalability

by Joseph Pasquini

A DEGRADED COMMUNICATIONS network is often the initial catalyst for a reduction in business productivity. To help both technicians and customers better address the performance issues often experienced with converged networks, Apparent Networks has introduced version 3.1 of its AppCritical assessment tool.

Upgraded from version 3.0, the latest AppCritical offers several major improvements for an IP network of any size. New key features include advanced report customization capabilities, greater scalability for large VoIP deployments, and an automated expert test analysis of summarized assessment results.

Utilizing Sequencer methodology, App-Critical measures network degradation via the transmission of precisely timed ICMP and/or UDP packets. As these packet groups move throughout the topology, their timing is distorted by network delays, restrictions, and limitations ultimately leaving a unique "signature" on the returning packets.

Statistics measured include packet jitter, percentage of packet loss, maximum achievable bandwidth, propagation delay, utilization, MOS (Mean Opinion Score), and Predictive MOS score. Additionally, the primary network faults identified by AppCritical include congestion, media errors, firewall limiting, grey hole and black hole hops, rate limiting queues, collision domain violations, suboptimal performance, and duplex conflicts.

SNAPSHOT

Apparent Networks AppCritical 3.1

Priced from \$15,000

Latest version of network performance software delivers enhanced reporting functionality and greater scalability

www.Processor.com/AppCritical

AppCritical reports provide administrators with network performance data, as well as fault information and location. Customized sections improve report readability, and a company logo can even be added to the report for a more professional appearance. To help users resolve a discovered issue, the generated report also offers

include improved search criteria, enhanced test status messages, a graphical representation of the diagnostic path, and expanded platform support. The software also allows additional sequencers, as well as more paths per sequencer.

Apparent Networks reports that 45% of its customer base had already upgraded to the new version of AppCritical within the product's first week of release. Among those entities already making the transition is the Canadian province of British Columbia. "The new release may not look much different at the onset, but initiate your first test in AppCrtical 3.1 and the new enhancements become 'apparent,'" notes Martin Webb, manager of data network operations for the Canadian province.

Apparent Networks reports that 45% of its customer base upgraded to the new version of AppCritical within its first week of release.

concise steps in a straightforward, communicative format that the user can follow to eliminate the bottleneck.

"With AppCritical 3.1, our customers can run easy-to-interpret network assessments in record time, enabling increased efficiencies and improving the bottom line by proactively identifying network problems and avoiding downtime," says Irfhan Rajani, Apparent Networks' president and CEO.

In addition to AppCritical's real-time uninterrupted monitoring, other features

Network assessment solutions include such robust offerings as Attachmate's NetIQ Vivinet Assessor (www.Processor.com /Attach) and Ixia's IxChariot (www.ixiacom .com). While all are similar in mission, AppCritical's solution differentiates itself from the competition thanks to its unique nonintrusive testing technique. "Nothing else available on the market today provides comparable diagnostics in a simple, easy-to-use package as AppCritical," adds Chris Norris, product manager at Apparent Networks.

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Continued from Page 20

■ Trend Micro announced Trend Micro ScanMail v8.0 For Microsoft Exchange. The software now supports Exchange Server 2007 and protects against email threats, such as spam, viruses, phishing messages, and inappropriate content, as well as zero-day attacks. ScanMail offers native x64-bit support, integrates with Microsoft Operations Manager and the Outlook junk mail folder, and supports Microsoft Intelligent Message Filter. ScanMail For Microsoft Exchange 8.0 will be available next month for \$22.90 per user for 2001 users.

Trend Micro also announced the Inter-Scan Messaging Security Suite and Inter-Scan Messaging Security Appliance, as well as a hosted service for enterprise customers, InterScan Messaging Hosted Security. The InterScan Messaging Security products include protections for antispam, antiphishing, antivirus, and antispyware. The email protection suite also provides flexible content filtering to help enforce compliance and prevent data leakage. The Trend Micro InterScan Messaging Security products use Network Reputation Services and IP Profiler to stop threats at the connection layer. It also features an antispam composite engine to catch remaining threats.

Storage

■ Emulex launched an upgraded version of its enterprise-class HBAnyware manage-

ment software, a Fibre Channel host bus adapter management suite that lets network administrators efficiently manage SAN connectivity. The new offering supports HP's Virtual Connect Fibre Channel module and is fully interoperable with Virtual Connect-capable HP BladeSystem c-Class products.

■ StorageCraft announced a partnership with Level Platforms to incorporate StorageCraft's ShadowProtect, a diskbased backup and disaster recovery software, into Level Platforms' Managed Workplace appliance. The ShadowProtect Server Edition and ShadowProtect Desktop Edition integrated with Managed Workplace offer a central way to monitor disk-based backup and disaster recovery processes on both servers and desktops in network environments. The combination of the two products is designed to improve the monitoring process of disk-based backup and disaster recovery for solution providers.

SERVICES

Business Productivity

■ Mitel plans to reveal information regarding its Mitel CIS (Customer Interaction Solutions) portfolio, which it says extends the contact center across an entire organization. The presence-anywhere CIS are based on SIP and Microsoft Office Live Communications Server. Mitel says CIS enables easy collaboration among contact center staff, experts, and partners, all of which can work together to resolve customer questions and take orders. The company says CIS delivers the first true contact resolution via providing access to external partners, including suppliers. CIS is available as scalable solutions, including Contact Center Enterprise Edition and Contact Center Business Edition (25 agents or

Hosting & Disaster Recovery

■ Rackspace Managed Hosting announced enhancements to its Partner Network—designed to provide customers with managed hosting services backed by Fanatical Support—which covers all industries, including system integrators, advertising and media agencies, consulting firms, and Web developers and designers. With the enhancements come three different partnership categories, including Select Partner, Premier Partner, and Business Partner. Members of the network also can earn marketing funds for promoting the organization's partnership with Rackspace. The company has more than 450 members in the Partner Network currently, including Blue Dingo, MySQL, Salesforce.com, Webmail.us, and SEO.

■ SWsoft released a version of its PEM that's designed to add support for mobile email to small and medium-sized enterprises that outsource online services to hosting providers. The PEM services can automate the provisioning, billing, and monitoring of both BlackBerry Enterprise Servers and Good Mobile Messaging Servers. PEM allows customers to order mobile email services from an online store or add it to an existing service plan. The PEM Solution for Hosted Exchange allows administrators to activate individual mailboxes and remotely remove data from a mobile device.

Training

■ Symantec announced Symantec eCampus, an online education service for product training that features a library of learning materials. The eCampus service helps customers better manage security, availability, performance, and compliance risks with Symantec technology. eCampus features free learning materials, such as whitepapers, Webcasts, case studies, multimedia tours, and podcasts. The service has five dedicated training centers focused around Symantec's products and pro-grams, including Backup Exec, Control Compliance Suite, Enterprise Vault, Symantec AntiVirus, and Security Awareness. Feebased training can be delivered through Web-based training, CDs, or live online Webcasts.

An Improved Backup Option

Arkeia Offers Backup Support For Heterogeneous Environments

by Scott Koegler

THE ABILITY TO BACK UP and recover computer data is a given in any enterprise, but that doesn't always mean the task is easy to accomplish. In environments that support multiple operating systems and storage types, the administrator's job is made more difficult because each system may require a different backup application. Besides requiring the administrator to learn multiple backup systems, each is likely to be on a different software revision cycle, even further complicating overall operations.

Backup 6.0 differs from many backup systems in that it supports a heterogeneous mix of operating systems and storage platforms. It also includes a new Linux Advanced Disaster Recovery module and provides support for SATA, LVM (logical

Arkeia's latest release of its Network

volume manager), and 64-bit x86 architecture as well as SCSI connections.

Version 6.0 can access and back up operating systems, including Microsoft Windows, Mac OS X, and several varieties of Unix and Linux. However, the system's backup capabilities do not include proprietary operating systems such as AIX.

SNAPSHOT

Arkeia Network Backup 6.0

Supports multiple operating systems and includes a facility allowing remote control of branch office backup for Microsoft Windows environments

www.Processor.com/Arkeia

The underlying programming code for Network Backup has been in use for more than six years, and version 6.0 includes enhancements that improve its speed of operation along with several functional additions. The new features include a backup migration function that allows for disk-to-disk-to-tape movement of data, a media server facility providing support for SAN environments, and a RDM (remote drive manager).

While Network Backup has always run on a variety of Linux platforms, the new version includes the ability to run on a Windows server. This expanded compatibility opens the door for the product's new RDM, which allows Network Backup to be run on a Windows platform in a remote office site. The RDM component run in the data center at the main site can be used to remotely monitor and control the backup function in the remote office. The REM feature is not a replication function, meaning both the primary and backup data remain at the remote location. However, the management functions and controls can be administered by professionals who are not at the remote office.

Competitors to Arkeia's Network Backup include Symantec's Backup Exec and NetBackup (formerly Veritas; www.syman tec.com) and CommVault's QiNetix software suite (www.commvault.com).

While Network Backup has always run on a variety of Linux platforms, the new version includes the ability to run on a Windows server.

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Matthew Bernard, IT network manager

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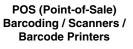


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OPINIONS

Mobile Security Culture Starts At The Top

You can tell a lot about a company's mobile security strategy by watching its senior executives actually use-or misuse—the technology.

I learned this stark truth years ago when I worked for a large financial services organization and witnessed first-hand how little one of its leaders understood about mobility, security, and the risks faced when employees took their data-laden devices out of the office.

One of our senior executives split his time between three cities and insisted on having three separate laptop computers, one on each of his desks.

I was tasked with keeping him synchronized and productive as he flitted from city to city. When one day I screwed up my courage and suggested a one-laptop strategy as a means of easing his data-shuttling activities every time he traveled, he chastised me for not appreciating the advantages of mobile computing. He subsequently took his laptop home one wintry evening and forgot it on the passenger seat. Miraculously, it wasn't stolen, but the frozen-then-thawed motherboard had to be replaced.

We got off lucky that time. But if I had been a little less fearful of challenging a senior executive's opinion, we would have never been at risk in the first place.

Ignorance Breeds Data Loss

Years later, an employee lost a laptop hard drive containing personal and account information for most of the organization's clients. More than 750,000 statements were on the drive, resulting in one of the coun-

try's largest-ever privacy debacles. The unencrypted drive was never recovered.

When I first heard the news, I thought about the exec who forgot his laptop in his car. He was nowhere to be seen in the fallout from this disaster, and that struck me as somewhat odd. Had I been one of the hundreds of thousands of clients whose personal information was now lost in the ether, I'd want the leaders of my company to fess up and explain to me how

they were going to prevent this from ever happening again. I'd also want to know that the firm's culture made it easy for underlings to challenge the technological inertia of their leaders.

It's A Matter Of Trust

Clients today make business decisions based on the level of trust they have in a given enterprise. In the case of financial services organizations, this is amplified because banks and their number-crunching cousins know far more about us than, say, the grocery store ever will. Once financial institutions lose that trust, they don't simply earn it back. Although the occasional

error is usually easily forgiven, it's entirely understandable that if the transgression is serious enough, it will never be forgotten.

Unfortunately, client trust is routinely violated by corner office dwellers who still don't get the whole security thing. If an enterprise's senior leaders haven't yet internalized why acceptable use policies on employee use of mobile devices are

breach? Probably not. It was a really large company, and I was not directly connected to the unit that lost the laptop. But that sense of doubt will always linger. I wonder if that leader-who was accountable for the budgets that ultimately paid for security initiatives—could have influenced his teams to be more vigilant. I'm sure that's something no customer ever wants to hear.

CARMI LEVY

Carmi Levy is a senior research analyst with Info-Tech Research Group, a London, Ontario,based research and professional services firm. He is the author of Info-Tech's Optimizing Your IT Infrastructure best practices methodology, as well as the 2005 research report, "Building the Next Generation Help Desk." Levy holds a journalism degree from Montreal's Concordia University and has extensive experience in IT project management, helpdesk re-engineering, high-performance team leadership, and process redesign.

important, then no amount of technology will protect them from disaster.

Underlings Must Rise Up

Security-conscious culture is ideally woven into the fabric of an organization, but executives must exert their own cultural influences if it is expected to hold. If senior leaders don't get the importance of mobility and security, the entire operation is weakened. Underlings, fearful of crossing those in suits, adapt their behavior accordingly.

I know I did. I never questioned that senior leader's perspectives on mobility again. Did my hesitation to stick my neck out result in a weakened security culture that led to the data

Leaders Must Drive A Security-Conscious Culture

The spate of high-profile data losses throughout all industries during the past few years should serve as a wakeup call to every C-level executive. Before enterprises can get serious about mobile security, their leaders must first understand the basic concepts of mobility and how mismanagement can potentially expose the organization to risk. Like the vice president of a bank

who figured out how to use smartphones to enable branch staff to respond more quickly to customer requests, senior execs who get the mobile zeitgeist can lead the organization in using this emerging technology in new, competitive, and profitable ways.

The buck stops at the corner office, and companies whose leaders don't understand what that means deserve to get stung when data walks out the front door and never comes back. Unfortunately, their clients will suffer, as well, which is why executive ignorance is such a dangerous state of being.

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The Evolving Software As A Service

How SaaS Improves The Old ASP Model

by Curt Harler

WHAT COMES AROUND goes around. One of the fun things about growing older in an industry is watching old services come around in new, improved guises. The morphing of the old ASP (application service provider) model into SaaS (software as a service) is one such instance. But there are differences.

"You are starting to see a shift from the old client-server model to SaaS," says Morris Panner, CEO of OpenAir (www.open

"The old ASP model is fundamentally not different from the end-user's standpoint," says Jim Hare, vice president of business development at SilverBack Technologies (www.silverbacktech.com). SilverBack's managed services allow SMEs to provision and turn-up customers 50% faster than traditional platforms. This, it says, translates into 50% savings in operations costs.

Hare emphasizes that SaaS is not a solution but a delivery method. "Understand and define your problem first," he says.

Cost Savings

SaaS has a range of applications that is mind-boggling, according to Jeff Kaplan, managing director of THINKstrategies (www.thinkstrategies.com). The company runs the SaaS Showcase Web site (www .saas-showplace.com), which is a directory of 1,300 SaaS applications. "Most people associate SaaS with CRM and sales force automation or collaboration tools," Kaplan says, "but there are also back-office applications like ERP, financial management, supply chain management, and HR systems."

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SaaS offers both software and hardware savings. Kaplan says SaaS eliminates hardware, operating system, and staffing costs of self-ownership. SaaS vendors continuously enhance their applications, a benefit that accrues to the user automatically, universally, and transparently. It is also easy to add or reduce the number of users.

"SaaS is a cost-effective means to obtaining software," says Bruce Mills, president of Inforonics (www.inforonics.com), noting there are no upfront license fees or systems required to run the applications, so upfront capital expenditures have been removed.

"Ongoing system and application management falls in the hands of the SaaS provider, as opposed to the internal IT staff in the traditional license-based model,"

With SaaS, costly enterprise applications such as CRM and ERP become affordable to even the smallest of the SMEs. On the software side, SaaS firms such as Right-Now Technologies (www.rightnow.com), Yahoo! Store (smallbusiness.yahoo.com), SalesForce.com, and QuickBooks (quick books.intuit.com) enable SMEs to run software but not have to host it in their own data centers.

One difference between SaaS and ASP is that SaaS follows a pay-as-you-go model rather than a perpetual license fee as was typical with ASPs.

"Selecting an SaaS solution over a traditional license model allows SMEs to become more nimble in adapting to changes in the market and to implementing changes in their businesses to be more competitive and successful," Mills says. "Once you select a traditional licensed software product and invest capital and time, it is extremely difficult to walk away from that investment."

"The typical SME saves 70 to 80%," notes Bert Armijo, vice president of sales and marketing at 3Tera (www.3tera.com). It provides the hardware, mainly servers and routers, that an SME might want. "You simply drag and drop the hardware onto a whiteboard. All of the hardware is in the network cloud."

He points out that larger companies can afford the staff to debug and maintain extensive software and hardware. They may have a row of Oracle experts and a floor full of programmers. "For the SME, it is an overhead expense that is unattainable," Armijo says. "It is far better to rely on a service provider."

Armijo notes that the typical Web 2.0 company will overbuild when installing software. "Now, they don't have to do that," he says. "It cuts a huge amount out of the capital budget."

Hare says that, in the long run, SaaS will probably be more expensive. "Typically, the crossover is in two to four years with 2.5 years being typical. If you have the capital available, you may be better off to do

Everyone agrees that SaaS can save a great deal of time. An SME can subscribe to a service and have it running in 30 minutes. Adding users is simply a matter of making a call or pinging the SaaS provider's Web site.

Internet-Ready

Another difference between ASP and SaaS offerings today is that most SaaS products are purpose-built for the Internet. Likewise, SaaS hosting hardware is developed and architected for use on the Internet. The typical ASP took a software package that was not written to be hosted and put it on the Web. That often caused troubles.

"The ASP model was a bit ahead of its time," Panner notes. "It assumed you could use a 56Kb line to accomplish your goals. Today, broadband lets you move data in an actionable way."

That is key, Panner says. Sending email or spreadsheets is one thing, he says, "But the vision shifted by virtue of SaaS' ability to make data actionable. It's the difference between mowing your lawn with a mower and cutting it one blade at a time."

Panner says IT professionals who get involved in SaaS can help both their companies and their own careers.

"SaaS is a very democratizing force in IT," Panner continues, explaining that it allows users access to applications without having to be IT gurus. "It is a virtuous combination of a career-enhancing move that is also a company-enhancing move. It may seem counter-intuitive to recommend a technology that puts less responsibility on IT," he says, but notes that it shows the IT department is thinking strategically.

"It puts developers in contact with the users," Armijo says. "Therefore, the upgrade cycle is faster, and usability goes up. It is far, far faster than packaged software programs. Likewise, a small manufacturer may have a custom-built software package that he needs to use. He can now run it without having to manage the associated hardware. That just became available in the past few months. If you figure an average of one server per three employees, in a 500-person company, that's a huge savings."

Kaplan says the debate over financial break-even with SaaS is going away. "Total cost of ownership is not relevant in the same way it was during the ASP era," he says. "Today it goes beyond dollars and cents, making it an apples-to-oranges comparison."

"You give up some level of control and become dependent on a third party," Mills notes. One cost efficiency that SaaS brings to the market is a single instance of the application being used by many. "This may limit flexibility in customization," he says. "You need to be as comfortable with your SaaS provider as you are with your electric, gas, and phone utilities."

Mills notes that cost savings can vary widely depending on the size of the organization and the level of sophistication in the IT staff. "Adopting an SaaS solution results in the costs to use the product showing up as a monthly expense, whereas buying a traditional license would involve getting capital approval for the software and hardware, securing financing, and incurring monthly and annual operating and maintenance expenses for the environment," he adds.

SaaS Buying Considerations

Most SMEs will like the fact that SaaS requires only a good Internet connection to log on to an application. The access interface is the same from office, hotel, or home. There is no need for a VPN.

However, there are caveats:

- · When you buy, know up-front how customizable the applications are. Find out what happens when data is moved to another system, in-house or to another provider.
- Inquire deeply about the provider's security setup, both for data integrity and for physical disasters. Delve into the provider's business-continuity strategy and backups. Find out whether they do incremental or batch backups.
- Know how they plan to handle power loss. Find out where their servers are mirrored.
- · Check the vendor's financial viability. Look at the quality of applications they offer and their roadmap for improving them. Ask whether they integrate with other thirdparty applications.
- Ask whether you can get a discount for committing to a long-term relationship rather than going month-to-month.
- · Another nuance is to insist on a solid service-level agreement with appropriate levels of uptime and penalties for lack of performance.



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Is Vista Security Ready For The Enterprise?

Security In Vista Is Much Improved, But Are The Changes Functional For Corporate Networks?

by Tony Bradley

MICROSOFT HAS INDICATED for some time now that its latest operating system, Windows Vista (www.microsoft.com), is its most secure one yet. While there has been some media hype about flaws or weaknesses in the flagship OS, nobody has really disputed that it is more secure than its predecessors. However, some have questioned whether the improved security offers any benefit for corporate networks, or if only individual home users gain anything from the new security features.

John Moyer, CEO and president of BeyondTrust (www.beyondtrust.com), expresses this sentiment: "Microsoft says Vista is the most secure and reliable operating system ever released. In my opinion, after Microsoft pulled many of the technologies they had once said would be in Vista, they were left with some security enhancements that they rallied around for

the Vista release. The most often touted improvement in security was User Account Control, or UAC. However, after talking with many customers, analysts, and experts, it is clear to me that UAC is simply not well-suited for the enterprise or managed network. At the same time, I do believe it is a vast improvement for the small office, home office (SOHO) market."

Security For Everyone

Austin Wilson, a Microsoft security guru who worked with the Vista development team, says, "There is a wide range of security and data protection features in Windows Vista, with some being enterprise features, some consumer, and some that have appeal to both audiences. Enterprise-targeted features include BitLocker, Windows Firewall with Advanced Security, and the ActiveX installation service that is part of User Account Control. Consumertargeted features include parental controls and Windows Defender. User Account

Whether Vista is being used by an individual or it is deployed to an entire enterprise, there is going to be a learning curve.

Control, Windows Service Hardening, IE Protected Mode, etc. have benefits for everyone. Even the features that may be enterprise-targeted, such as BitLocker, have applicability in the small and medium business space as well, helping protect laptops that have sensitive information on them."

Regardless of whether Vista is being used by an individual or it is deployed to an entire enterprise, there is going to be a learning curve. If the operating system were identical to the last one, Microsoft wouldn't need to bother developing it, and nobody would buy it. Some of the new features, security and otherwise, serve more of a purpose for individuals than businesses, but all of them will take some getting used to.

Joel Dubin, Microsoft MVP and author of "The Little Black Book of Computer Security," notes, "Some of the features, such as User Account Control, are aimed at home users, and its pop-up windows could be difficult for a small business user, but it's a little early to tell since it hasn't been widely adopted yet. The other security features, such as Windows Defender, operate in the background and wouldn't be intrusive. But for a small or medium-size business the best approach is to see how well it integrates into their current environment. If they're using Active Directory, for example, the Vista systems would connect to that environment, where many of the same

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Top New Security Features In Vista

User Account Control. UAC controls the ability for programs and processes to interact with other programs and processes or perform functions in Windows Vista. A pop-up window will alert the user that a task is attempting to execute and ask for the user's choice on how to proceed.

Windows Integrity Control. Normal NTFS file permissions are discretionary. They rely on the user or owner of the data to properly assign permissions to control access. In Vista, WIC adds a level of mandatory control that overrides the discretionary privileges to add further protection. WIC is one of the primary security features that helps to make surfing the Web more secure in Vista by ensuring that applications and processes from Internet Explorer can not interact with the system.

BitLocker Drive Encryption. It seems like not a month goes by that there isn't a news headline about a lost or stolen laptop compromising personal or sensitive information of millions of people. Many corporations have started rolling out third-party whole-disk encryption products to ensure that all of the data on the system is encrypted and protected from unauthorized access. Microsoft has built its own whole-disk encryption function into Vista.

PatchGuard Kernel Protection. The 64-bit version of Vista offers additional protection for the kernel. The system kernel is the heart and soul of the operating system. It provides the low-level functionality that tells all of the other parts of the operating system how to work. Some rootkits and malware have exploited weaknesses in the kernel to run covertly and remain undetected. Vista uses PatchGuard to protect the kernel and ensure that no application or process accesses it.

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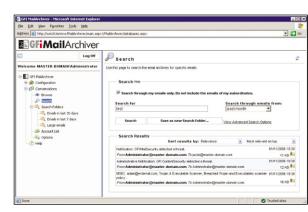
Using GFI MailArchiver, enterprises can reduce reliance on PST files and easily keep up with the latest compliance and

legal requirements. The program can reduce email storage requirements by up to 80% and increase Exchange performance while easing backup and restoration.

Network administrators can avoid the pains of PST file management, eliminating corrupted PST files and the lengthy, troublesome process of fixing them. GFI MailArchiver also makes it possible to overcome the risk of PST loss if hardware fails on the employees' workstations.

Employees can use their Web browser to easily locate and access all their emails from anywhere in the world. And a OneClick Restore process makes it easy for employees to quickly restore their emails.

The latest update to GFI MailArchiver, version 4, allows archiving directly to an NTFS drive, with no need to purchase a license for an MS SQL server. Version 4 also features new email retention policies and a Saved Search function so users can save their search requests for repeated use.



GFI MailArchiver makes it easy to search for and access emails

Other new features in version 4 include the ability to search within various types of email attachments such as MS Word, Excel, PDF files, OpenOffice, and Word-Perfect. Version 4 also incorporates flexible email access control through Active Directory integration, which allows configured users to access other users' archived emails. For example, GFI MailArchiver can be configured to allow a departmental manager to access all his team's email.

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Making The Right Choice In UPS Batteries

Cost, Reliability & Footprint Drive Purchasing Decisions

by Darrell Dunn

SERVER VIRTUALIZATION, quad-core processors, direct-attach cooling equipment, and flavor-of-the-month products can often grab the attention of IT decision makers as they plan data center expansions or new facilities. Those executives know, however, that decisions made about the batteries they use to power their critical uninterruptible power systems could spell the difference between business success and failure.

"IT managers don't get fired because the electricity bill is too high," says Martin Reynolds, an analyst for Gartner. "They get fired because they can't deliver to the computing requirements of the organization." An enterprise ground to a halt by a power outage won't engender too much board room confidence.

"Batteries generally need to be pretty high on the radar," says Jeff Donato, service product manger for Emerson Network Power (www.Processor.com/Emerson-Liebert), where he helps businesses design, populate, run, and maintain their data centers. According to a survey by Emerson Network Power, batteries are the leading cause of system failure. Battery-related failure accounts for 37% of all UPS system failures, according to the survey.

UPS and battery failure can be caused by a number of factors, including general wear and tear associated with electromechanical devices, but failure can also often be directly tied to core maintenance programs that can be addressed with an in-house or third-party battery monitoring platform.

"There are a lot of companies that, quite frankly, will scale back on maintenance programs at times for various reasons," Donato says. "So battery monitoring seems to be taking off right now to help customers predict failure and work proactively to evade load loss."

A Few Considerations

Enterprise customers always have three basic considerations when making data center battery decisions, says Stephen Vechy, marketing director for UPS at EnerSys (www.enersysinc.com), a \$1.2 billion supplier of batteries in 2006.

"It is always reliability, footprint, and economics," Vechy says. "Those are the

should consider when making new battery purchases.

Flooded vs. valve-regulated. Large data center operations with adequate adjacent real estate often use flooded batteries, a style of battery where gases created are vented from the top of the cell. The flooded, or VLA (vented lead acid), batteries provide a total life time of up to 20 years and are highly robust and reliable.

The VLA batteries are also large, expensive, and generally must be supported off-site from the raised floor of a data center. That can be a plus or minus, depending on the cost and availability of data center space. An average VLA battery string is

"The design and type of battery type must be considered when determining the power load to be delivered to any data center."

-Emerson Network Power's Jeff Donato

underlying questions in every customer's mind when they are attempting to develop a strategy that meets and balances all those requirements. You always want the highest reliability in the smallest space for the most economical cost."

Like any part of a data center project, UPS and related battery requirements should be evaluated to ensure the implementation will best meet specific requirements while providing the optimum trade-off in lifetime and performance value, Donato says.

"The design and type of battery type must be considered when determining the power load to be delivered to any data center," Donato says. "It's an equation solved by a combination answer that is determined by the load I'm trying to support and the specific operating environment."

There are some overriding considerations all IT directors and data center managers

between \$70,000 and \$100,000 with installation.

VRLA (valve-regulated lead acid) batteries also generate gases, but they are contained within a sealed environment. The batteries can be placed in cabinets within the raised floor of data centers and within close proximity to the equipment they support.

VLRA batteries offer a relatively cheap and easy way to quickly expand a data center or add redundancy. Life expectancy of the batteries, however, is typically between five to six years. An average VLRA battery string is priced between \$7,000 and \$8,000.

The optimum string length. Determine what battery string length best meets your reliability requirement. Having a single string of batteries in a battery center, while potentially expedient in some respects, could prove to be a bad choice if there is a cell failure somewhere along the string.

Even when installing multiple strings, IT and facilities directors need to consider the run time design and the trade between price and reliability. Two 30-minute strings will be more expensive to purchase than a single one-hour string, but the shorter strings will provide better protection.

Take a closer look at the up-front purchase costs (or bury them). That big difference in purchase price and design life of VLA and VRLA batteries can also provide different possibilities for budgeting the purchase. The higher up-front cost of VLA batteries tends to lock the purchase into a businesses' capital budget. With the cost of a string less than \$10,000, VRLA purchases can often be shifted into a maintenance budget. Data center managers can develop plans that meet their own budgeting path concerns.

Don't forget the maintenance. If overcharged, gas generated within VRLA

Negative Influences On Batteries

- High and low temperature
- High charge voltage resulting in water loss and heat
- Low charge voltage resulting in sulfation
- Manufacturing defects
- Excessive charge and discharge cycles
- Water loss in VRLA batteries
- · Grid plate growth or shedding
- · Corroded and loose connections

Source: EMERSON NETWORK POWER/LIEBERT

batteries can lead to safety vent releases that will "dry-out" the cell, resulting in a permanent loss of capacity. A 10% water loss in a cell can equate to a 25% loss in capacity. This environmental factor should also be considered when determining the physical location of the batteries.

Data center or facilities managers also need to keep an eye on normal aging by using a systematic maintenance program that includes inspection for grid corrosion and separation of the paste and grid. Excess discharges and the room temperature can also affect the lifetime of batteries.

Integrate remote monitoring solutions into the plan. Having an up-to-date understanding of the condition of your batteries can allow a data center manager to optimize the lifetime of the equipment and remain confident that power will be available when needed. With proper analysis, the accumulated data will improve your ability to make informed maintenance and replacement decisions.

Watch the mixing of old and new VRLA batteries and keep those spares onsite. Try to avoid any cell mismatches and maintain uniform measurement of installed batteries relative to their ages. It can take only one bad cell to bring down a UPS

The cost and portability of VRLA batteries can allow for the installation of onsite spare battery racks that can remain charged and ready for action. The spares age with the original battery string, which reduces the risk of a battery mismatch.

A rolling cabinet of spare batteries can also reduce the number of physical visits needed to repair a damaged battery string.

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Is Vista Security Ready For The Enterprise?

Continued from Page 27 security features can be controlled through GPOs."

Enterprise Problems With Vista Security

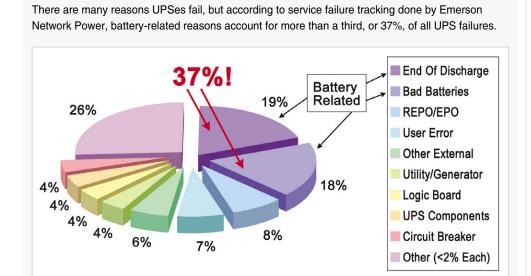
The main issue that some, including BeyondTrust's Moyer, have with Vista

security is with UAC, which plays watchdog and displays a pop-up alert whenever a program or process attempts to execute or interact with another program or process. UAC is designed to protect the system from malware and from users executing tasks they did not mean to. An example of UAC in action would be a standard user installing software. A standard user does not have the authority to install software, but by entering the user credentials of an administrator or other user that does have authority, the program can be installed.

According to Moyer, "Vista's User Account Control is an improvement that, in my opinion, best serves the SOHO market. Here, it is typical that the user in a sense 'owns' the machine and can best make the choice of when and when not to elevate to

administrator privileges. However, User Account Control is not a good answer for medium and large organizations that run applications that require administrator privileges because it requires administrator password distribution to end users or end user consent to run the applications."

Administrators should take some time to experiment with and pilot test Vista in their environments to help work through that learning curve and determine what will work best for their individual circumstances.



Batteries: The Leading Cause Of UPS Failure

WHAT'S HAPPENING

BayTech's Remote Answer

Systems For Controlling & Monitoring Data Centers Remotely

 $by\ John\ Brandon$

POWER IS A mystifying force within the data center. Knowing how much power is being distributed, regulating use during times of operation, balancing power with cooling solutions, and managing other environmental conditions are all major considerations. Yet, most admins cannot administer the power distribution issues on the premises during every waking breath and all hours of the day.

Remote power management is one solution to this problem, and BayTech, aka Bay Technical Associates (www.Processor.com/BayTech), is one of the industry leaders in remote power management. The company started in 1976 making flow meters used on pipelines, code activated data switches, and satellite uplink test systems.

"In the mid '90s, BayTech introduced the first controlled and monitored power distribution strip," says Alex North, BayTech's director of sales and marketing. "Coupled with our data switches, a controllable power distribution strip allowed our customers to completely monitor and control a remote location. This eliminated the majority of the cost of servicing a remote point-of-presence. Timing for these products could not have been better. Between the growth of corporate data centers, distributed processing, and colocation facilities, BayTech sales of remote management solutions skyrocketed."

In 2005, the company—which is located near the Gulf Coast—was devastated by Hurricane Katrina. One manufacturing plant and one storage facility were destroyed, and 80% of its workforce had to leave the company because there was no housing available. Thankfully, one facility was built to withstand 250mph winds and withstood the storm. Yet, shipments to the area were halted, and less than 5% of area housing was available. The company made several critical decisions to stay open and survive. In some ways, it stands as a testament to the company resilience—and perhaps the resilience of its products and remaining employees, who took on more work. A competitor named Pulizzi Engineering (www.Processor.com/PulizziEngineering) actually helped the company build a reserve fund by donating a percentage of sales to assist BayTech customers.

"Eighteen months later we are in much better shape—our customer service and production capabilities are better then ever," says North. "We now rely much more on contract manufacturing and have a backup manufacturing facility in the works."

Current Products

Since the '90s, BayTech has developed unique products for remote power management, using a more reliable means to provide power to servers and other equipment. The company uses PCB (printed circuit

board) instead of wires for a better, more resilient connection between the data center equipment and the receptacle.

"The RPS (remote power sensor) products provide reliable PCB receptacle distribution and have the ability to monitor and report anomalies in all aspects of power, such as current, voltage, and watts," says North. "The reported watts can be used to determine cooling needs in an area of the data center. This product also has sensor inputs for monitoring temperature and humidity. Customers can use this information to monitor the complete power and physical environment with one product."

The DS-RPC and F-RPC product lines allow admins to monitor, control, and reboot data center equipment using dial-up, Telnet, or a Web interface. They are module-based and rack-mountable and include security features such as SSH v2, RADIUS authentication, SNMP, and user access lists that are provided per port for fine control over networks and servers remotely. The DS-RPC

necessary. Our customers tell us this one box, designed for remote sites or branches, eliminates 95% of their service truck rolls when there is a problem."

BayTech also provides an extensive Web site at www.baytech.net with brochure downloads, warranty information, reseller support, and schematics—more than the typical IT services company. BayTech also offers evaluation units for data centers.

New Developments

Recent industry changes in remote power distribution management include higher density receptacles and power. The company says it was producing 120VAC, 20-amp, low-density units just five years ago; now it makes 208VAC, 30-amp, 2-phase units, pointing to a rapid increase in power outputs. Another trend is in putting more power into smaller enclosures, due to how customers have been putting 8kW in one enclosure in a data center. In the remote management industry, reading power watts from



product is for single connection applications, and the F-RPC is for multiuser, multisession connections for larger organizations.

"The ATS (automatic transfer switch) has a dual corded input and provides a single output," says North. "For customers with legacy or single corded devices needing to provide N+1 redundancy, the ATS will switch over in 8 to 12ms to the secondary power source if the primary is lost. The DS-RPC (Data Switch and Remote Power Control) is a unit which combines console server and power control. This one box allows customers to dial in to a remote site, communicate with the equipment's console port, and reboot the equipment if

BayTech equipment is an important part of making sure the equipment is running cool yet getting the power it needs to function normally even during heavy use periods.

One new development is in increasing the 50- and 60-amp offerings with new software development going toward managing power usage at even greater levels. BayTech says it is not able to formally announce these new products. It is also working on key partnerships with other data center providers but cannot disclose those developments quite yet either. North did mention that the partnerships will lead to a "more total solution" for remote power distribution management in the next year or so.

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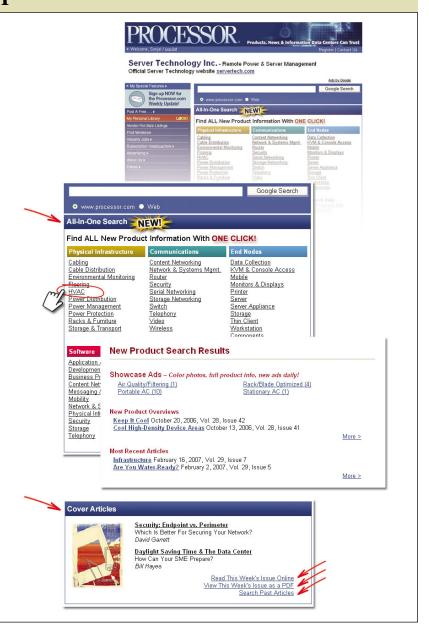
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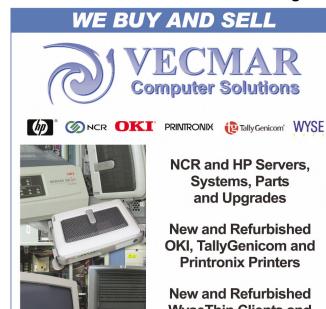


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